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Subject: **Overview of Phase II Environmental Site Assessment**

The key findings of the Phase II Environmental Site Assessment (ESA) completed by Roux Environmental Engineering and Geology, D.P.C. and Roux Associates, Inc. (collectively known herein as Roux) for the area contained within the Alexandria Waterfront Implementation Project (the Project) are summarized in the following sections. The Project Team is evaluating various Project Alternatives to upgrade the current flood mitigation system; major areas of disturbance may include underground stormwater detention chambers, two pump stations, and a new bulkhead along part or all of the waterfront from Duke to Queen Street. Environmental sampling locations for Phase II ESA extend from Duke Street to the south to Oronoco Street to the north, and from the Potomac River to Union Street to the west. The overall Project Area, as outlined in Figure 1, is currently developed with commercial and residential space with open public areas.

Introduction

The Project's Phase II ESA was performed as the second step in the environmental due diligence process following the Phase I ESA, summary below. The Phase II ESA included a preliminary environmental field investigation to determine if contaminants were present in soil, groundwater, sediment and/or surface water. The data will be used to assist the Project Team to identify future cost and schedule risks associated with management and disposal of potentially contaminated media generated from activities such as pump station deep excavation areas, bulkhead installation and dredging.

Phase I ESA: Environmental Conditions Report Summary

Roux completed an evaluation of existing and historical property uses to determine likely presence of contamination in the subsurface soils, groundwater, and Potomac River sediment within the Project Area. The findings of the Phase I ESA evaluation are summarized in Environmental Conditions Report dated February 22, 2022. Based on the information gathered during the process, Roux identified potential environmental issues that could have resulted in contamination of subsurface materials and near shore sediments that could impact construction. The primary issues appear to result to the historical industrial nature of the waterfront, and the placement of fill of unknown origin and quality to grade and level land. The following is a brief synopsis:

- The Oronoco Outfall – Alexandria Town Gas Site and Robinson Terminal North located adjacent upgradient to the north and west of the Project Area are currently undergoing remediation. The properties may have impacted northern portions of the Project Area as a result of undocumented migration of contamination in the subsurface.
- Former Naval Torpedo Station and other past industrial activity, including coal storage, agricultural chemical warehouses, iron foundries, and along N. Lee Street, S. Lee Street, N. Union

Street, and S. Union Street could potentially impact the environmental quality of the Project Area. Roux was not able to find evidence if a site-wide investigation was completed at the former Naval Torpedo Station; however, monitoring wells were observed in the sidewalk.

- In addition, to the industrial activity along the waterfront, these areas were likely filled with historic fill materials to create land in historically low-lying areas along the historical riverfront, such as Founder's Park. The source of this historic fill material is unknown and can commonly be found to contain contaminants such as heavy metals (including arsenic, cadmium, lead, and mercury), and polycyclic aromatic hydrocarbons (PAHs).

Phase II ESA Scope of Work

Roux completed the Phase II ESA field investigation on November 1 through December 20, 2021. The field work included the following at the Project Area:

- Eleven (11) land soil borings;
- Five (5) groundwater samples;
- Six (6) surface water samples; and
- Six (6) sediment samples.

The sampling locations are shown on Figure 1. Samples were submitted to a laboratory to confirm whether it is contaminated or not. In the laboratory, if a specific parameter exceeded the applicable state regulatory threshold, then the parameter was identified as a Contaminant of Concern (COC) and the sample is contaminated. It is possible for a sample to be contaminated with multiple COCs. The Phase II work did not confirm whether a sample is classified as a toxic hazardous waste; rather, the field investigative work followed a qualitative procedure to assess the sample's potential for a toxic hazardous waste classification.

Sample Selection Process

The Phase II ESA field investigation collected soil, groundwater, surface water and sediment samples. A sample was selected primarily based on the field screening and collected from intervals exhibiting the highest evidence of field screening. Field screening, or highest perceived impact, refers a sample exhibiting one or more of the following characteristics:

- High photoionization detector (PID) readings;
- Odors;
- Staining;
- Visible petroleum product; or
- Other visual indicator for potential contamination.

Therefore, this methodology biased samples for highest potential for contamination.

Environmental Field Investigation

All soil samples were collected via a drill rig advanced by Free State Drilling (Free State). Roux personnel observed each soil boring advanced to approximately 20 to 30 feet below ground surface (bgs). Soil from each location was visually inspected for evidence of impacts and screened for organic vapors in the field using a PID. Soil lithology was recorded according to the Unified Soils Classification System (USCS). Soil samples were collected from the six-inch interval of highest perceived impact. If impacts were not observed or detected, a soil sample was collected six inches above groundwater interface.

Five soil boring locations were converted into monitoring wells across the Project Area. Groundwater samples were collected from the monitoring wells via conventional groundwater sampling methodologies. Following the Phase II ESA investigation, groundwater monitoring wells will be used to monitor the seasonal groundwater levels; no further environmental testing of groundwater samples is planned for the Waterfront Implementation Project by the Owners Advisory team.

All soil samples were submitted to a Virginia Environmental Laboratory Accreditation Program (VELAP)-approved laboratory and analyzed for the following list of parameters:

- Volatile organic compounds (VOCs);
- Semi-volatile organic compounds (SVOCs);
- Target Analyte List (TAL) Metals;
- Pesticides; and
- Polychlorinated biphenyls (PCBs).

All groundwater samples were submitted to a VELAP-approved laboratory and analyzed for the following list of parameters:

- VOCs;
- SVOCs;
- TAL Metals (Total and Dissolved); and
- Pesticides.

All Potomac River sediment samples were collected via a drill rig advanced by Connelly and Associates, Inc. Roux personnel observed each sediment boring advanced to approximately 20 feet bgs. Sediment from each location was visually inspected for evidence of impacts and screened for organic vapors in the field using a PID. Sediment lithology was recorded according to the USCS. Sediment samples were collected from the six-inch interval of highest perceived impact. If impacts were not observed, a sediment sample was collected within the first foot. A surface water sample was collected from each sediment sampling location via a Kemmerer sampler approximately six to twelve inches above the depth to sediment.

All Potomac River sediment samples were submitted to a VELAP-approved laboratory and analyzed for the following list of parameters:

- VOCs;
- SVOCs;
- TAL Metals;
- PCBs;
- Pesticides;
- Sieve/hydrometer; and
- Total Organic Carbon (TOC).

All surface water samples were submitted to a VELAP-approved laboratory and analyzed for the following list of parameters:

- VOCs;
- SVOCs;

- TAL Metals (Total and Dissolved);
- Pesticides;
- Hardness; and
- TOC.

Laboratory Analysis

Samples were submitted to a laboratory for analysis as detailed above. Analytical results were compared to the applicable state regulatory thresholds, in order to determine if the soil represented by the samples would be considered contaminated, and thus, would require special handling or disposal procedures.

As an additional qualitative measure, samples were also compared to United States Environmental Protection Agency (USEPA) characteristics to assess potential for a toxic hazardous waste classification. Samples were assessed by the “20-times rule”. This means if the analytical data in a sample is 20 times the state threshold, the sample may be considered hazardous waste; however, the USEPA Method 1311 would need to be ran to determine if the waste is in fact hazardous. The samples were not analyzed via USEPA Method 1311 during the Phase II ESA investigation since this was the preliminary investigation. The Design-Builder will be responsible for subsequent sampling and analysis using the USEPA Method 1311 during Design to coordinate offsite treatment and/or disposal of excess soil, groundwater, and/or sediment.

Therefore, based on the laboratory analysis conducted, samples may only be classified as contaminated or not contaminated. Any reference herein to toxic hazardous waste is not confirmed but only has the potential for this classification. Cost and schedule implications to a (future) confirmed toxic hazardous waste classification are summarized under Conclusions and Recommendations.

Phase II ESA Findings

The analytical results of the soil, groundwater, sediment, and surface water samples are summarized in the attached Tables 1 through 4. Sampling locations are shown on Figure 1. Soil samples results were compared to the Virginia Department of the Environment Quality (VADEQ) Voluntary Remediation Program (VRP) Tier II Residential Soil Screening Levels (SSL) and Tier III Industrial SSL. Groundwater was compared to the VADEQ VRP Tier II Residential Groundwater Screening Levels (R GWSL) and Tier III Construction Direct Contact (Cons DC) GWSL. The criteria above were selected to help understand potential impacts to the surrounding community and workers that could potentially be affected by the proposed construction activities.

The Potomac River sediment samples were compared to the VADEQ VRP Tier II Sediment Screening Levels (SED SL) and USEPA Region 3 Screening Value. Surface water samples were compared to VADEQ VRP Tier II Fresh Surface Water Screening Level (SWSL), VADEQ VRP Tier II Marine SWSL, and USEPA Region 3 Screening Values. Sediments were compared to more stringent criteria than the VADEQ VRP SSLs as aquatic life/benthic organisms are the primary receptors that may be impacted as a result of sediment disturbance during construction activities.

Soil Sampling Results

All soil samples were collected at the locations shown on Figure 1 and the analytical results are provided on Table 1. Analytical laboratory packages are provided in Attachment A. Eleven soil borings were advanced at the Project Area. The soil lithology predominantly consisted of grey clay and sand with fill material. Soil boring logs are provided as Attachment B. No staining or odor was observed in soil borings

BH-15, GI-12, GI-13P, GI-14, GI-15P, PS-04AP, and PS-04P. The following soil borings had perceived impacts during field screening:

- BH-04: Staining, odor and PID hits were observed. Located at southeast corner of Waterfront Park.
- GI-10: Odor and PID hits were observed. Located in Waterfront Park.
- GI-11: Staining, odor and PID hits were observed. Located in Founders Park.
- PS-02P: Staining, odor and PID hits were observed. Located in Waterfront Park.

In addition to the perceived impacts during field screening, certain soil borings contained analytical exceedances above the compared criteria and therefore soil exhibiting those exceedances can be considered contaminated. Soil analytical data indicated the following:

- VOCs were detected below the laboratory reporting limits (i.e., non-detect [ND]) or detected below applicable standards.
- SVOCs were ND or detected below applicable standards, except for the following:
 - 1,1'-Biphenyl was detected above the VADEQ VRP Tier II Residential SSL in seven soil samples (BH-04, GI-10, GI-11, GI-14, PS-02P, PS-04AP and PS-04P).
 - 2-Methylnaphthalene was detected above the VADEQ VRP Tier II Residential SSL in five soil samples (BH-04, GI-10, GI-14, PS-02P and PS-04AP).
 - Benzo[a]anthracene was detected above the VADEQ VRP Tier II Residential SSL in two soil samples (GI-11 and PS-04AP).
 - Benzo[a]pyrene was detected above the VADEQ VRP Tier II Residential SSL in three soil samples (GI-11, GI-14 and PS-04AP).
 - Benzo[b]fluoranthene was detected above the VADEQ VRP Tier II Residential SSL in one soil sample (GI-11).
 - Dibenz(a,h)anthracene was detected above the VADEQ VRP Tier II Residential SSL in one soil samples (GI-11).
 - Dibenzofuran was detected above the VADEQ VRP Tier II Residential SSL in five soil samples (GI-10, GI-11, GI-14, PS-02P and PS-04AP).
 - Naphthalene was detected above the VADEQ VRP Tier II Residential SSL in all eleven soil samples (BH-04, BH-15, GI-10, GI-11, GI-12, GI-13P, GI-14, GI-15P, PS-02P, PS-04AP and PS-04P).
- PCBs were ND or detected below applicable standards.
- Pesticides were ND or detected below applicable standards, with the exception of the following:
 - Delta-BHC was detected above the VADEQ VRP Tier II Residential SSL in BH-04.
- Metals were ND or detected below applicable standards, with the exception of the following:
 - Aluminum was detected above the VADEQ VRP Tier II Residential SSL in eight soil samples (BH-04, BH-15, GI-12, GI-13P, GI-14, GI-15P, PS-04AP, and PS-04P).
 - Antimony was detected above the VADEQ VRP Tier II Residential SSL in three soil samples (GI-11, PS-04AP, and PS-04P).
 - Arsenic was detected above the VADEQ VRP Tier II Residential SSL in nine soil samples (BH-04, BH-15, GI-11, GI-12, GI-13P, GI-14, GI-15P, PS-04AP, and PS-04P) and Tier III Industrial SSL in one soil sample (GI-11).
 - Cadmium was detected above VADEQ VRP Tier II Residential SSL in one soil sample (PS-04AP).
 - Cobalt was detected above VADEQ VRP Tier II Residential SSL in all eleven soil samples (BH-04, BH-15, GI-10, GI-11, GI-12, GI-13P, GI-14, GI-15P, PS-02P, PS-04AP, and PS-04P).
 - Copper was detected above VADEQ VRP Tier II Residential SSL in two soil samples (GI-11 and PS-04AP).
 - Iron was detected above VADEQ VRP Tier II Residential SSL in all eleven soil samples (BH-04, BH-15, GI-10, GI-11, GI-12, GI-13P, GI-14, GI-15P, PS-02P, PS-04AP and PS-04P) and VADEQ VRP Tier III Industrial SSL in one sample (PS-04AP).

- Lead was detected above VADEQ VRP Tier II Residential SSL in one soil sample (GI-11).
- Manganese was detected above VADEQ VRP Tier II Residential SSL in all eleven soil samples (BH-04, BH-15, GI-10, GI-11, GI-12, GI-13P, GI-14, GI-15P, PS-02P, PS-04AP and PS-04P).
- Mercury was detected above VADEQ VRP Tier II Residential SSL and Tier III Industrial SSL in one sample (GI-11).
- Selenium was detected above VADEQ VRP Tier II Residential SSL in two samples (GI-11 and PS-04AP).
- Silver was detected above VADEQ VRP Tier II Residential SSL in one sample (PS-04AP).
- Vanadium was detected above VADEQ VRP Tier II Residential SSL in two samples (BH-15 and PS-04AP).
- Zinc was detected above VADEQ VRP Tier II Residential SSL in one sample (PS-04AP).

In summary, the primary COCs in soil are metals and PAHs related to the presence of historical fill material. Historical fill was used to create land in historically low-lying areas and typically contaminated metals and PAHs. The historical industrial properties, specifically the Alexandria Town Gas Site, is also a potential contributor to the presence of metals and PAHs in soil.

Groundwater Sampling Results

Groundwater samples were collected at the monitoring wells installed during the investigation, locations shown on Figure 1 and analytical results are provided on Table 2. Analytical laboratory packages are provided in Attachment A. Groundwater analytical data indicated the following:

- Total metals were ND or detected below applicable standards, with the exception of the following:
 - Aluminum was detected above the VADEQ VRP Tier II R GWSL in two wells (GI-13P and PS-04P).
 - Arsenic was detected above the VADEQ VRP Tier II R GWSL in one well (PS-02P).
 - Cobalt was detected above the VADEQ VRP Tier II R GWSL in two wells (PS-04AP and PS-04P).
 - Iron was detected above the VADEQ VRP Tier II R GWSL in all five wells (GI-13P, GI-15P, PS-02P, PS-04AP, and PS-04P).
 - Lead was detected above the VADEQ VRP Tier II R GWSL in two wells (PS-04AP and PS-04P).
 - Manganese was detected above the VADEQ VRP Tier II R GWSL in all five wells (GI-13P, GI-15P, PS-02P, PS-04AP, and PS-04P) and Tier III Cons DC GWSL in two wells (GI-13P and GI-15P).
 - Mercury was detected above the VADEQ VRP Tier III Cons DC GWSL in two wells (PS-02P and PS-04P).
 - Vanadium was detected above the VADEQ VRP Tier II R GWSL in one well (PS-04P).
- Dissolved metals were ND or detected below applicable standards, with the exception of the following:
 - Iron was detected above the VADEQ VRP Tier II R GWSL in three wells (GI-15P, PS-02P, and PS-04P).
 - Manganese was detected above the VADEQ VRP Tier II R GWSL in all five wells (GI-13P, GI-15P, PS-02P, PS-04AP, and PS-04P) and Tier III Cons DC GWSL in two wells (GI-13P and GI-15P).
- SVOCs were ND or detected below applicable standards.
- Pesticides were ND or detected below applicable standards.
- VOCs were ND or detected below applicable standards.

In summary, the COCs detected in groundwater are metals likely attributed suspended sediment from historical fill. These exceedances are not indicative of groundwater quality at the Site, but rather reflect the presence of sediment suspended within the groundwater sample as the only metals were detected after laboratory filtration are naturally occurring salts (i.e., manganese, iron).

Sediment Sampling Results

Sediment samples were collected along the Potomac River during the water investigation. All sampling locations can be seen on Figure 1 and analytical results are provided on Table 3. Analytical laboratory packages are provided in Attachment A. Sediment Borings are provided as Attachment B. No staining or odor was observed in borings BH-3, BH-16, and PS-04. The following soil borings had perceived impacts during field screening:

- BH-10: Staining and minor PID hits were observed. Located near the former Naval Torpedo Station.
- BH-12: Odor and PID hits were observed. Located near Prince Street.
- BH-20: Odor and PID hits were observed. Located near the former Naval Torpedo Station.

In addition to the perceived impacts during field screening, certain sediment borings contained analytical exceedances above the compared criteria. Sediment analytical data indicated the following:

- Metals were ND or detected below applicable standards, with the exception of the following:
 - Antimony was detected above the USEPA Region 3 Screening Value in one sample (BH-20).
 - Arsenic was detected above the USEPA Region 3 Screening Value in four samples (BH-10, BH-12, BH-16, and PS-04).
 - Cadmium was detected above the USEPA Region 3 Screening Value in three samples (BH-10, BH-12, and BH-20).
 - Chromium was detected above the USEPA Region 3 Screening Value in one sample (BH-10).
 - Cobalt was detected above the VADEQ VRP Tier II SED SL in one sample (BH-12).
 - Copper was detected above the USEPA Region 3 Screening Value in all six samples (BH-3, BH-10, BH-12, BH-16, BH-20, and PS-04).
 - Iron was detected above the USEPA Region 3 Screening Value in all six samples (BH-3, BH-10, BH-12, BH-16, BH-20, and PS-04).
 - Lead was detected above the USEPA Region 3 Screening Value in five samples (BH-3, BH-10, BH-12, BH-16, and PS-04).
 - Manganese was detected above the USEPA Region 3 Screening Value in all six samples (BH-3, BH-10, BH-12, BH-16, BH-20, and PS-04).
 - Mercury was detected above the USEPA Region 3 Screening Value in four samples (BH-10, BH-12, BH-16, and BH-20).
 - Nickel was detected above the USEPA Region 3 Screening Value in all six samples (BH-3, BH-10, BH-12, BH-16, BH-20, and PS-04).
 - Selenium was detected above the USEPA Region 3 Screening Value in two samples (BH-16 and PS-04).
 - Silver was detected above the USEPA Region 3 Screening Value in one sample (BH-10).
 - Zinc was detected above the USEPA Region 3 Screening Value in five samples (BH-3, BH-10, BH-12, BH-16, and PS-04).
- PCBs were ND or detected below applicable standards, with the exception of the following:
 - PCB-1254 was detected above the USEPA Region 3 Screening Value in one sample (BH-10).

- PCB-1260 was detected above the USEPA Region 3 Screening Value in one sample (BH-10).
- Pesticides were ND or detected below applicable standards, with the exception of the following:
 - Beta-BHC was detected above the USEPA Region 3 Screening Value in one sample (BH-10).
 - Gamma-BHC was detected above the USEPA Region 3 Screening Value in two samples (BH-3 and BH-12).
 - P,p'-DDE was detected above the USEPA Region 3 Screening Value in one sample (BH-12).
- SVOCs were ND or detected below applicable standards, with the exception of the following:
 - 2-Methylnaphthalene was detected above the USEPA Region 3 Screening Value in four samples (BH-10, BH-12, BH-20, and PS-04).
 - 4-Methylphenol was detected above the USEPA Region 3 Screening Value in one sample (BH-20).
 - Acenaphthene was detected above the USEPA Region 3 Screening Value in all six samples (BH-3, BH-10, BH-12, BH-16, BH-20, and PS-04).
 - Acenaphthylene was detected above the USEPA Region 3 Screening Value in all six samples (BH-3, BH-10, BH-12, BH-16, BH-20, and PS-04).
 - Anthracene was detected above the USEPA Region 3 Screening Value in four samples (BH-10, BH-12, BH-20, and PS-04).
 - Benzo[a]anthracene was detected above the USEPA Region 3 Screening Value in three samples (BH-10, BH-12, and PS-04).
 - Benzo[a]pyrene was detected above the USEPA Region 3 Screening Value in three samples (BH-10, BH-12, and PS-04).
 - Benzo[b]fluoranthene was detected above the USEPA Region 3 Screening Value in all six samples (BH-3, BH-10, BH-12, BH-16, BH-20, and PS-04).
 - Benzo[g,h,i]perylene was detected above the USEPA Region 3 Screening Value in two samples (BH-10 and BH-12).
 - Benzo[k]fluoranthene was detected above the USEPA Region 3 Screening Value in five samples (BH-10, BH-12, BH-16, BH-20, and PS-04).
 - Bis(2-ethylhexyl) phthalate was detected above the USEPA Region 3 Screening Value in one sample (BH-12).
 - Chrysene was detected above the USEPA Region 3 Screening Value in three samples (BH-10, BH-12, and PS-04).
 - Dibenz(a,h)anthracene was detected above the USEPA Region 3 Screening Value in two samples (BH-10 and BH-12).
 - Fluoranthene was detected above the USEPA Region 3 Screening Value in two samples (BH-10 and BH-12).
 - Fluorene was detected above the USEPA Region 3 Screening Value in two samples (BH-10 and BH-20).
 - Indeno[1,2,3-cd]pyrene was detected above the USEPA Region 3 Screening Value in all six samples (BH-3, BH-10, BH-12, BH-16, BH-20, and PS-04).
 - Naphthalene was detected above the USEPA Region 3 Screening Value in two samples (BH-10 and BH-20).
 - Phenanthrene was detected above the USEPA Region 3 Screening Value in two samples (BH-10 and BH-20).
 - Pyrene was detected above the USEPA Region 3 Screening Value in four samples (BH-10, BH-12, BH-20, and PS-04).
- VOCs were ND or detected below applicable standards.

The COCs in sediment vary based on comparison with the two applicable standards. When comparing to the USEPA Region 3 Screening Values, the COCs in sediment are metals, PCBs, pesticides, and SVOCs. When comparing to the VADEQ VRP Tier II SED SL, the only COC in sediment is cobalt. Cobalt was

detected in one sample that was marginally above the standard (24 micrograms per kilograms [mg/kg], standard of 23 mg/kg).

Surface Water Sampling Results

Surface water samples were collected at the locations of the sediment samples, locations shown on Figure 1 and analytical results are provided on Table 4. Analytical laboratory packages are provided in Attachment A. Surface water analytical data indicated the following:

- Total metals were ND or detected below applicable standards, with the exception of the following:
 - Aluminum was detected above the USEPA Region 3 Screening Value in all six samples (BH-3, BH-10, BH-12, BH-16, BH-20, and PS-04).
 - Barium was detected above the USEPA Region 3 Screening Value in all six samples (BH-3, BH-10, BH-12, BH-16, BH-20, and PS-04).
 - Iron was detected above the USEPA Region 3 Screening Value in all six samples (BH-3, BH-10, BH-12, BH-16, BH-20, and PS-04).
- Dissolved metals were ND or detected below applicable standards, with the exception of the following:
 - Barium was detected above the USEPA Region 3 Screening Value in all six samples (BH-3, BH-10, BH-12, BH-16, BH-20, and PS-04).
- SVOCs were ND or detected below applicable standards, with the exception of the following:
 - 2-Methylnaphthalene was detected above the USEPA Region 3 Screening Value in one sample (BH-16).
 - Naphthalene was detected above the USEPA Region 3 Screening Value in one sample (BH-16).
- Pesticides were ND or detected below applicable standards.
- VOCs were ND or detected below applicable standards, with the exception of the following:
 - Toluene was detected above the USEPA Region 3 Screening Value in one sample (BH-16).

The COCs in surface water vary based on comparison with the two applicable standards. When comparing to the USEPA Region 3 Screening Values, the COCs in surface water are metals, SVOCs, and VOCs. When comparing to the VADEQ VRP standards, there are no COCs, i.e., there were no parameters that exceeded this standard. The exceedances reported per the USEPA Region 3 Screening Values are likely a result of groundwater infiltration, leaching from treated wood timbers, or marine activity within in the river.

Conclusion and Recommendations

The concentrations of compounds observed in the soil, groundwater, sediment, and surface water samples indicate that these media have contaminants that require proper management to mitigate potential impacts to the community, workers, and wildlife during subsurface disturbance as part of construction. In addition, the excess soil, groundwater, and sediment generated as part of construction will require proper characterization and off-site disposal. The metals in soil and groundwater at the Project Area can be attributed to historical fill.

Roux recommends the following to mitigate cost overruns and schedule delays during construction associated with contaminated soils, sediment, and groundwater. These recommendations are specific to the Design Builder during Phase 1 services once the area of disturbance is adequately defined:

- Completion of Proper Waste Disposal Characterization in accordance with Virginia Administrative Code (9VAC20-81 – Solid Waste Management Regulations, and 9VAC20-60 – Virginia

Hazardous Waste Regulations) and the waste disposal facility requirements by analyzing at least one five-point composite sample from each excavation area for the following analysis. Please note the analysis list could change based on the waste disposal facility requirements. Typically, waste disposal facility requires one composite sample to be collected every 500 tons of soil to be disposed of. If in-situ waste characterization will be completed (i.e., via soil borings) then the waste characterization can be completed during Phase 1 (preliminary services); however, the Design-Builder will have to satisfy the requirements of the waste disposal facility and additional waste characterization may be required during Phase 2, i.e., during construction, to confirm the previous waste characterization data and disposal facility requirements for:

- Resource Conservation and Recovery Act (RCRA) Characteristics including Reactivity, Ignitability, and Corrosivity;
 - Total Petroleum Hydrocarbon (TPH) Gasoline Range Organics (GRO);
 - TPH Diesel Range Organics (DRO);
 - TPH Oil and Grease;
 - Total VOCs;
 - Total SVOCs;
 - PCBs; and
 - Full Toxicity Characteristic Leaching Procedure (TCLP) List via USEPA Method 1311 – 8 Metals, Volatile Organic Compounds (VOCs), Base Neutrals (BNs), Pesticides and Herbicides.¹
- If the Design Builder confirms Hazardous Waste is present within the area of disturbance, the Design Builder is responsible for procuring a Waste Generator Identification Number. The Design Builder's selected disposal facility will dictate the supplemental characterization which is required prior to obtaining the ID number.
 - Procuring of Proper Permits to Dewater and Discharge Contaminated Groundwater. As later discussed in this report, the regulator of the discharge location will dictate the sampling requirements in order to procure the permit(s).
 - Procuring Proper Permits for In-Water Work (i.e., USACE Permits)

During the actual construction phase of the project, Roux recommends the Design Builder prepare and execute the following per general construction industry standards:

- Environmental Management Plan (EMP);
- Environmental Health and Safety Plan (EHASP);
- Contaminated material handling and disposal specification(s);

Collectively they will provide the necessary measures to mitigate risk for workers, aquatic life/benthic organisms, and surrounding community, and requirements to ensure proper characterization and disposal of excess sediments generated during construction. Documents will also provide guidance and direction to the project team on requirements that may be triggered by the presence or potential presence of contaminated materials including, worker training, personal protective equipment (PPE), work-zone and community air monitoring, dust controls and monitoring, erosion and sediment controls, soil/sediment disposal characterization requirements, recordkeeping, and regulatory reporting. Plans will also include

¹ The TCLP and RCRA Characteristics is a common analysis to determine if the waste is characterized as non-hazardous or hazardous waste.

contingency measures should unexpected environmental conditions be encountered such as Underground Storage Tanks (USTs) and significantly contaminated materials.

Some specific examples of how these documents can be prepared and utilized based on the Project's Phase II ESA are summarized as follows:

- An EMP will detail the groundwater discharge requirements. Given the presence of COCs in the groundwater, the groundwater dewatered from excavations will likely require pre-treatment, e.g., settling or filtration, to remove sediments prior to discharge to the sanitary or storm sewer.
- A contaminated material handling and disposal specification will be prepared to detail how to handle and dispose of media encountered during construction.

Other general best practices include but are not limited to:

- Completion of perimeter; and
- Work-zone air monitoring.

Collectively these practices will protect community and workers, respectively, from dust and particulates during any construction activity. Metals and PAHs were identified in the soil during the Phase II ESA investigation. As a result, dust controls including covering of non-active stockpiles, or wetting of surfaces will be required during construction to minimize fugitive dust emissions and sediment runoff. Roux recommends completing perimeter air monitoring to ensure the dust and sediment controls within the Project Area are performing as designed.

Lastly, while the presence of toxic hazardous waste was not confirmed as part of the Phase II ESA, the metal concentrations contained within soils indicate the potential of soil to be classified as a toxic hazardous waste. In particular, lead and arsenic concentrations were above the "20-times rule". A toxic hazardous waste classification triggers additional regulatory and reporting requirements beyond a contaminated classification. When a waste is considered hazardous, a USEPA identification number will need to be established prior to disposing hazardous waste. After a USEPA identification number is established, the extent of hazardous waste to be disposed of will need to be estimated and the waste will need to be disposed of at an approved hazardous waste facility. The cost to dispose of hazardous waste could be as much as five to ten times as much as non-hazardous waste. If waste is not properly characterized prior to reaching a disposal facility, the waste will be denied and cause delays in the schedule and additional costs.

Waste Disposal and Permitting

The potential options for management of soil include on-site reuse or off-site disposal. The material is suitable for on-site reuse from an environmental perspective; however, additional testing and/or capping may be required based on specific design conditions including surface finish or depth of use below land surface, which will be further evaluated during the Design-Build Phase. Additionally, the Design Builder should refer to the Geotechnical Data Report and Geotechnical Design Memorandum prepared by Mueser Rutledge Consulting Engineers, PLLC to confirm that the material is suitable for engineering and construction. While no separate-phase oil was found in the Phase II ESA investigation, the Design Builder is still responsible for inspecting the excavated soil to the maximum extent possible before placing back

into use at the same general location it was removed and using as fill. Prior to placing the soil back into the hole, the soil should be screened with a PID and visually for perceived impacts (high PID readings, odors, staining, visible petroleum product, etc.). The findings should be documented in a daily log. Should soil be determined to be excess or not suitable for reuse, soil will need to be properly characterized to satisfy soil disposal facility criteria and Virginia Administrative Code (9VAC20-81 – Solid Waste Management Regulations, and 9VAC20-60 – Virginia Hazardous Waste Regulations).

Based on the Phase II ESA data, Roux evaluated potential off-site disposal options for soil and sediment. Off-site disposal locations include a landfill or redevelopment locations with like-on-like contaminations with the VADEQ approval. The cost for disposal of soil depends on the quantity and contamination in the soil.

Roux contacted Clean Earth regarding budgetary costs for transportation and disposal of the anticipated 80,000 cubic yards of soil² that are to be generated as part of this Project. Based on the Phase II ESA data, it is assumed that budgetary pricing from Clean Earth disposal facilities is summarized below³:

- Category 1 - Clean Soil - \$25 - \$35 per ton, Disposal facility located in Brandywine, Maryland.
- Category 2 – Contaminated Soil - \$35 - \$50 per ton, Disposal facility located in Brandywine, Maryland.
- Category 3 – Arsenic Contaminated Soil Disposal (Arsenic less than 77 parts per million [ppm]) - \$70 - \$85 per ton, Disposal facility located in New Castle, Delaware.
- Category 4 – Hazardous soil (contaminated with metals above USEPA toxicity limits) - \$175 - \$200 per ton – New Castle, Delaware for stabilization/landfill disposal

Based on the Phase II ESA analytical data, it is anticipated that the majority of soil will be characterized as Category 2 – Contaminated Soil requiring testing and off-site disposal at a regulated facility.

Prior to disposal, the waste will require facility approval and additional sampling. Clean Earth requires one five-point composite sample⁴ to be collected every 500 tons and analyzed for:

- Total Petroleum Hydrocarbon (TPH) Gasoline Range Organics (GRO)
- TPH Diesel Range Organics (DRO)
- TPH Oil & Grease
- PCBs
- Total VOCs
- Total SVOCs
- RCRA 8 Metals
- Full TCLP

The disposal options for sediment include sediment confined disposal facility and landfill disposal. If the sediment is disposed via sediment confined disposal facility, then the sediment will be transferred via a barge and stabilization of the material will not be required. If the sediment is disposed at a landfill, then stabilization will be required and the sediment will have to pass a paint filter test prior to disposal. Potential sediment confined disposal facilities include Weanack Land (Shirley Plantation) and Wolf Trap Alternate Open Water Replacement Site. The transportation and disposal costs for confined disposal facilities is approximately \$50 - \$70 per cubic yard; however, these costs can range depending on the distance the

² Total excavation volume estimate was provided by Carollo and is based on the Preferred Project Alternative.

³ Soil assumes a generic soil density of 1.5 tons per cubic yard.

⁴ Please note disposal facilities other than those specified above could require different sampling parameters and frequency.

barge has to travel and the size of the barge. For 15,000 cubic yards of sediment to be disposed of⁵, approximately three full depth composite samples will need to be collected and analyzed for the full suite of compounds.

If the sediment is taken to a landfill, the sediment will need to be dried on-site prior to disposing. It will depend on the contractors means and methods how the sediment will be dried and how long it will take. The dried sediment can be disposed of at the same facilities as the soil and would have the same costs and sampling frequency.

Dewatering and Groundwater Discharge

Based on the analytical data and COCs in groundwater, groundwater that is dewatered from excavations will require pre-treatment (i.e., settling tanks, or filtration using fabric filter bags) to remove sediments prior to discharge to the sanitary or storm sewer. Groundwater discharge would require review and approval from VADEQ for disposal to the stormwater system that leads directly to the Potomac River, or review and approval from Alexandria Renew if water is discharged to the sanitary system to ensure that discharged water will not affect wastewater treatment.

While not encountered during the Phase II ESA investigation, there is a possibility separate-phase oil is encountered or drawn in via groundwater pumping from nearby contaminant sources (i.e., the Alexandria Town Gas Site/Oronoco Street Outfall), additional pre-treatment such as a carbon or sand filter may be necessary to remove contaminants that may not be removed via settling. Once the dewatering depths, pumping rates, volume of water to be removed, etc. is better defined additional sampling will be required to confirm that conditions have not changed, and to support permitting.

Regulatory Agency Coordination

Historic reports reviewed during the Phase I ESA identified petroleum and perceived impacts in the Project Area; however, during completion of the Phase II ESA investigation borings, petroleum impacts were not identified by Roux. During construction, if petroleum or other evidence of overt perceived impacts (such as strong odors or staining) are present in soils contained within the excavation, notification to the VADEQ Pollution Response Program may be necessary. Additional notifications may be required to the VADEQ Solid Waste Division depending on characteristics of soil (e.g., hazardous soils failing the USEPA RCRA hazardous waste characteristics, including corrosivity, ignitability, reactivity, and toxicity). Should hazardous soils be encountered, the USEPA should be contacted, and a RCRA Subtitle C Site Identification Form may be required. Additional notification and record keeping information may also be triggered. Beneficial reuse of non-hazardous soils at other construction sites will require VADEQ review and approval.

Groundwater discharge would require review and approval from VADEQ for disposal to the stormwater system that leads directly to the Potomac River, or review and approval from Alexandria Renew if water is discharged to the sanitary system to ensure that discharged water will not affect wastewater treatment

For work disturbing sediment within the Potomac River (e.g., dredging or bulkhead work), a United States Army Corps of Engineers (USACE) Nationwide Permit will most likely be required. Roux recommends conducting a pre-application consultation with USACE or informal meeting during the early planning phase of the project to determine the exact permit required or if the project qualifies for an Individual Permit. The

⁵ Sediment excavation volume estimate was provided in the South Bulkhead Dredging Plan provided by Stantec dated August 2017.

meeting could also include other agencies such as VADEQ, Virginia Marine Resource Commission (VMRC), USEPA, Fish and Wildlife Services, or historic resources. As part of the USACE Permit process, the following information will most likely be required:

- How much material will be dredged?
- What areas will be impacted? Will any wetlands be impacted?
- Analytical data of the media.
- Where is the dredged material being disposed of?

Depending on how the sediment will be handled, a USACE Section 404 Permit and/or Virginia Pollutant Discharge Elimination System (VPDES) will be required. The permit will discuss how the surface water and decant water will be handled and if any filtering or remediation will be required.

Previous engineering efforts completed the above steps, including preparing a draft USACE Joint Permit Application and consulted with other regulatory agencies. However, it is recommended to revisit these questions and re-engage the aforementioned stakeholders with the redefined project scope. Considering a Progressive Design-Build (PDB) delivery method, and therefore, only a 5-15% design is required for procurement, it is recommended for a Design-Builder to lead this effort during the 15-30% design development.

Also, in accordance with the Preliminary Archaeological Assessment (PAA) prepared by Alexandria Archaeology dated November 5, 2021 for Founders Park, an archaeological evaluation for Founders Park is required to be completed and will be completed under a separate contract.

References

Draft Alexandria Flood Mitigation Bulkhead Individual Permit Application dated October 5, 2018 prepared by Stantec Consulting Services, Inc.

Preliminary Archaeological Assessment (PAA) dated November 5, 2021 prepared by Alexandria Archaeology.

1. Sampling Locations

DRAFT



LEGEND

- ▲ Soil Boring Location
- ⊕ Soil Boring and Monitoring Well Location
- Sediment and Surface Water Sampling Location
- Approximate Areas of Disturbance

NOTES

1. Aerial Source: World Imagery.

Title:

SAMPLING LOCATIONS

ALEXANDRIA, VIRGINIA

Prepared for:

MUESER RUTLEDGE CONSULTING ENGINEERS, PLLC



Compiled by: A.L.S.	Date: 01/26/22	FIGURE 1
Prepared by: A.L.S.	Scale: AS SHOWN	
Project Mgr: A.L.S.	Project: 2549.0012Y000	
File: F1(BP)		

1. Summary of Soil Analytical Data
2. Summary of Groundwater Analytical Data
3. Summary of Sediment Analytical Data
4. Summary of Surface Water Analytical Data

DRAFT

Soil Analytical Data Table Notes:

VADEQ VRP = Virginia Department of Environmental Quality Voluntary Remediation Program.

Tier II Residential SSL = Tier II Residential Soil Screening Level.

Tier III Industrial SSL = Tier III Industrial Soil Screening Level.

ft bgs = Feet below ground surface.

mg/kg = Milligrams per kilogram.

Boxed concentrations exceed the VA Tier II Residential SSL.

Shaded concentrations exceed the VA Tier III Industrial SSL.

B = Analyte also detected in the laboratory blank.

H = Sample was analyzed past hold time.

NS = No standard currently established.

U = Not detected above laboratory detection limit.

U' = Laboratory reporting limit exceeds the applicable regulatory standard or criteria being utilized.

J = Result below the reporting limit (estimated value).

Bold = Detected concentration.

When the applicable state standard applies to mixed isomers and the laboratory reports individual isomers, the total standard is listed for each isomer.

Groundwater Analytical Data Table Notes:

VADEQ VRP = Virginia Department of Environmental Quality Voluntary Remediation Program.

Tier II R GWSL = Tier II Residential Groundwater Screening Levels.

Tier III Cons DC GWSL = Tier III Construction Direct Contact Groundwater Screening Level.

µg/l = Micrograms per liter.

Boxed concentrations exceed the VA Tier II R GWSL.

Shaded concentrations exceed the VA Tier III Cons DC GWSL.

NS = No standard currently established.

U = Not detected above laboratory detection limit.

U' = Laboratory reporting limit exceeds the applicable regulatory standard or criteria being utilized.

J = Result below the reporting limit (estimated value).

Bold = Detected concentration.

When the applicable state standard applies to mixed isomers and the laboratory reports individual isomers, the total standard is listed for each isomer.

Sediment Analytical Data Table Notes:

VADEQ VRP = Virginia Department of Environmental Quality Voluntary Remediation Program.

Tier II SED SL = Tier II Sediment Screening Level.

USEPA = United States Environmental Protection Agency.

ft bgs = Feet below ground surface.

% = Percent.

mg/kg = Milligrams per kilogram.

Boxed concentrations exceed the Tier II SED SL.

Shaded concentrations exceed the USEPA Region 3 Screening Values.

— = Sample not analyzed.

B = Analyte also detected in the laboratory blank.

F1 = MS and/or MSD recovery exceeds control limits.

NS = No standard currently established.

U = Not detected above the method detection limit. Note that half of the method detection limit was reported. □

U' = One half of the method detection limit exceeds the applicable regulatory standard or criteria being utilized. □

J = Result below the reporting limit (estimated value).

Bold = Detected concentration.

When the applicable state standard applies to mixed isomers and the laboratory reports individual isomers, the total standard is listed for each isomer.

Surfacewater Analytical Data Table Notes:

VADEQ VRP = Virginia Department of Environmental Quality Voluntary Remediation Program.

Tier II Fresh SWSL = Tier II Fresh Surface Water Screening Level.

Tier II Marine SWSL = Tier II Marine Surface Water Screening Level.

USEPA = United States Environmental Protection Agency.

µg/l = Micrograms per liter.

Boxed concentrations exceed the Tier II Fresh SWSL.

Shaded concentrations exceed the USEPA Region 3 Screening Values.

+ = Concentrations exceed the Tier II Marine SWSL.

B = Analyte also detected in the laboratory blank.

NS = No standard currently established.

U = Not detected above the method detection limit. Note that half of the method detection limit was reported.

U' = One half of the method detection limit exceeds the applicable regulatory standard or criteria being utilized.

J = Result below the reporting limit (estimated value).

Bold = Detected concentration.

When the applicable state standard applies to mixed isomers and the laboratory reports individual isomers, the total standard is listed for each isomer.

Table 1. Summary of Soil Analytical Data. Mueser Rutledge Consulting Engineers PLLC; Alexandria, VA.

Sample ID	VADEQ VRP		BH-04	BH-15	GI-10	GI-11	GI-12	GI-13P	GI-14	GI-15P	PS-02P	PS-04AP	PS-04P
Sample Depth (ft bgs)	Tier II	Tier III	9.0-9.5	5.5-6.0	3.5-4.0	9.5-10.0	5.5-6.0	6.5-7.0	6.5-7.0	7.0-7.5	5.0-5.5	10.5-11.0	5.5-6.0
Lab Sample ID	Residential	Industrial	41062737-1	41062150-1	41061668-1	41063941-1	41063941-2	41063941-3	41063750-2	41063750-1	41061668-2	41062932-1	41063382-1
Sample Date	SSL	SSL	11/8/2021	11/4/2021	11/1/2021	11/18/2021	11/18/2021	11/18/2021	11/17/2021	11/17/2021	11/1/2021	11/10/2021	11/15/2021
METALS (mg/kg)													
Aluminum	7700	110000	20000	21000	3900	3900	11000	9600	15000	8900	3300	8800	9300
Antimony	3.1	47	3.9 U'	1.6 U	1.3 U	7.3	2.1 J	1.7 U	1.6 U	1.7 U	1.6 U	5.1	8.8
Arsenic	3.5	30	6.8 J	23	2.6	36	9.7	4.1	5.7	4.1	3.1	11	5
Barium	1500	22000	100 B	180	36	100	170	67	110	75	36	150 B	90 B
Beryllium	16	230	0.94 J	1.1	0.26 J	0.24 J	0.4 J	0.47 J	0.9	0.55	0.26 J	0.43 J	0.11 U
Cadmium	7.1	98	0.23 U	0.66	0.13 J	1.7	0.16 J	0.18 J	0.39 J	0.2 J	0.096 U	18	0.52 J
Calcium	NS	NS	79000	2200	15000	3400	7600	2500	2500	14000	18000	44000	38000 B
Chromium	3600000.4	NS	33	31	15	12	18	15	19	15	9.8	37	18
Cobalt	0.5424	35	25	15	4.7	9.8	7.1	5.2	10	6.6	5.6	23	7.3
Copper	310	4700	39	52	8.4	400	37	17	26	23	9.9	1200	65
Iron	705.6	82000	31000	37000	10000	70000	51000	12000	21000	15000	9400	97000	18000
Lead	400	800	42	110	12	720	81	36	40	49	19	390	70
Magnesium	NS	NS	7200	2900	1400	580	1300	1400	2000	1700	1100	3000	2100 B
Manganese	56.072	2600	480	250	240	140	180	110	370	260	210	720	360
Mercury	1.1	4.6	0.38	0.29	0.025 J	7.8	0.07 J	0.057 J	0.21	0.14	0.046 J	0.55	0.56
Nickel	50.856	2200	27	24	5	15	13	10	19 B	12 B	6	13	12
Potassium	NS	NS	1000	1800	670	1100	2300	1100	1900	1500	500	1500	1800
Selenium	5.2	580	3.5 U	1.5 U	1.3 J	8.5	4.5 J	2.1 J	1.4 U	1.5 U	1.4 U	7.5	1.6 U
Silver	1.598	580	0.93 J	0.51 J	0.3 U	0.7 J	0.46 U	0.56 J	0.38 U	0.39 U	0.38 U	4.3	0.43 U
Sodium	NS	NS	160 J	110	88	100 J	250	74 J	78 J	130	44 U	630	340
Thallium	0.078	1.2	3 U'	1.3 U'	0.96 U'	1.6 U'	1.5 U'	1.3 U'	1.2 U'	1.3 U'	1.2 U'	1.2 U'	1.4 U'
Vanadium	39	580	36	46	18	20	29	24	34	21	14	86	26
Zinc	746.4	35000	110	170	19	590	68	56	81	62	21	7400	120
POLYCHLORINATED BIPHENYLS (mg/kg)													
PCB-1016	0.267681984	5.1	0.013 U	0.0069 U	0.0055 U	0.007 U	0.0065 U	0.0065 U	0.0068 U	0.0062 U	0.03 U	0.0071 U	0.0065 U
PCB-1221	0.015975119	8.3	0.013 U	0.0069 U	0.0055 U	0.007 U	0.0065 U	0.0065 U	0.0068 U	0.0062 U	0.03 U'	0.0071 U	0.0065 U
PCB-1232	0.015976811	7.2	0.013 U	0.0069 U	0.0055 U	0.007 U	0.0065 U	0.0065 U	0.0068 U	0.0062 U	0.03 U'	0.0071 U	0.0065 U
PCB-1242	0.243985896	9.5	0.013 U	0.0069 U	0.0055 U	0.007 U	0.0065 U	0.0065 U	0.0068 U	0.0062 U	0.03 U	0.0071 U	0.0065 U
PCB-1248	0.239088032	9.4	0.026 J	0.0069 U	0.0055 U	0.007 U	0.0065 U	0.0065 U	0.0068 U	0.0062 U	0.03 U	0.0071 U	0.0065 U
PCB-1254	0.12	1.5	0.019 J	0.0083 U	0.015 J	0.029	0.0079 U	0.014 J	0.0082 U	0.0075 U	0.036 U	0.013 J	0.0079 U
PCB-1260	1.091377857	9.9	0.022 J	0.0083 U	0.0067 U	0.0084 U	0.0079 U	0.013 J	0.0082 U	0.0075 U	0.76	0.0085 U	0.0079 U
PESTICIDES (mg/kg)													
Aldrin	0.030220189	1.8	0.0042 U	0.00022 U	0.0035 U	0.022 U	0.001 U	0.001 U	0.11 U'	0.04 U'	0.019 U	0.0011 U	0.0021 U
alpha-BHC	0.008372194	3.6	0.006 J	0.00022 U	0.0035 U	0.022 U'	0.001 U	0.001 U	0.11 U'	0.0044 J	0.019 U'	0.0011 U	0.0054 J
alpha-Chlordane	3.5	45	0.1 U	0.00022 U	0.0035 U	0.022 U	0.001 U	0.001 U	0.11 U	0.04 U	0.019 U	0.0011 U	0.042 U
beta-BHC	0.029070008	13	0.011 U	0.00057 U	0.0092 U	0.058 U'	0.0032 J	0.0027 U	0.28 U'	0.0051 U	0.049 U'	0.0043 J	0.11 U'
delta-BHC	0.008372194	3.6	0.014 J	0.00059 U	0.0094 U'	0.059 U'	0.0028 U	0.0028 U	0.29 U'	0.0053 U	0.051 U'	0.003 U	0.0055 U
Dieldrin	0.014536813	1.4	0.2 U'	0.00043 U	0.0069 U	0.043 U'	0.002 U	0.002 U	0.21 U'	0.0039 U	0.037 U'	0.0022 U	0.004 U
Endosulfan I	2.744446062	700	0.014 J	0.00029 U	0.0046 U	0.029 U	0.0014 U	0.0014 U	0.14 U	0.0058 J	0.025 U	0.0015 U	0.054 U
Endosulfan II	2.744446062	700	0.027 U	0.0014 U	0.023 U	0.14 U	0.0068 U	0.0068 U	0.7 U	0.013 U	0.12 U	0.0073 U	0.013 U
Endosulfan sulfate	4.376680253	490	0.0081 U	0.00043 U	0.0069 U	0.043 U	0.002 U	0.002 U	0.21 U	0.0039 U	0.037 U	0.0022 U	0.004 U
Endrin	1.615200901	25	0.017 U	0.00089 U	0.014 U	0.089 U	0.0042 U	0.0042 U	0.44 U	0.0079 U	0.076 U	0.0045 U	0.0083 U
Endrin aldehyde	1.615200901	25	0.0081 U	0.00043 U	0.0069 U	0.043 U	0.002 U	0.002 U	0.21 U	0.0039 U	0.037 U	0.0022 U	0.004 U
Endrin ketone	1.615200901	25	0.015 U	0.00078 U	0.013 U	0.079 U	0.0037 U	0.0037 U	0.38 U	0.007 U	0.067 U	0.004 U	0.15 U
gamma-BHC (Lindane)	0.023256073	25	0.13 U'	0.00027 U	0.0044 U	0.028 U'	0.0013 U	0.0013 U	0.13 U'	0.007 J	0.024 U'	0.0014 U	0.052 U'
gamma-Chlordane	3.5	45	0.018 J	0.00033 U	0.0052 U	0.033 U	0.0015 U	0.0015 U	0.16 U	0.0029 U	0.028 U	0.0017 U	0.061 U
Heptachlor	0.661768334	6.3	0.025	0.0004 U	0.0065 U	0.041 U	0.0019 U	0.0019 U	0.2 U	0.0036 U	0.035 U	0.0021 U	0.013

Table 1. Summary of Soil Analytical Data. Mueser Rutledge Consulting Engineers PLLC; Alexandria, VA.

Sample ID	VADEQ VRP		BH-04	BH-15	GI-10	GI-11	GI-12	GI-13P	GI-14	GI-15P	PS-02P	PS-04AP	PS-04P
Sample Depth (ft bgs)	Tier II	Tier III	9.0-9.5	5.5-6.0	3.5-4.0	9.5-10.0	5.5-6.0	6.5-7.0	6.5-7.0	7.0-7.5	5.0-5.5	10.5-11.0	5.5-6.0
Lab Sample ID	Residential	Industrial	41062737-1	41062150-1	41061668-1	41063941-1	41063941-2	41063941-3	41063750-2	41063750-1	41061668-2	41062932-1	41063382-1
Sample Date	SSL	SSL	11/8/2021	11/4/2021	11/1/2021	11/18/2021	11/18/2021	11/18/2021	11/17/2021	11/17/2021	11/1/2021	11/10/2021	11/15/2021
Heptachlor epoxide	0.081680298	1.5	0.1 U'	0.00022 U	0.0035 U	0.022 U	0.001 U	0.001 U	0.11 U'	0.04 U	0.019 U	0.0011 U	0.0021 U
Methoxychlor	32	410	0.044 U	0.0023 U	0.038 U	0.24 U	0.022 J	0.011 U	1.2 U	0.021 U	0.2 U	0.012 U	0.022 U
p,p'-DDD	0.029635203	2.5	0.0081 U	0.00043 U	0.0069 U	0.043 U'	0.0044 J	0.002 U	0.21 U'	0.0039 U	0.037 U'	0.0049 J	0.004 U
p,p'-DDE	2.163841356	35	0.014 J	0.00043 U	0.0069 U	0.043 U	0.002 U	0.002 U	0.21 U	0.0055 J	0.037 U	0.0022 U	0.004 U
p,p'-DDT	3.7	52	0.48 U	0.001 U	0.016 U	0.1 U	0.0049 U	0.0049 U	0.51 U	0.0092 U	0.089 U	0.0053 U	0.19 U
Toxaphene	0.57	7.4	0.34 U	0.018 U	0.29 U	1.8 U'	0.086 U	0.086 U	9 U'	0.16 U	1.6 U'	0.093 U	0.17 U
SEMI-VOLATILE ORGANIC COMPOUNDS (mg/kg)													
1,1'-Biphenyl	0.017362092	20	0.23	0.022 U'	1.3	0.34	0.021 U'	0.02 U'	0.25	0.02 U'	0.3	0.2	0.04 J
1,2,4,5-Tetrachlorobenzene	0.015788047	35	0.041 U'	0.022 U'	0.017 U'	0.022 U'	0.021 U'	0.02 U'	0.021 U'	0.02 U'	0.019 U'	0.022 U'	0.021 U'
2,2'-oxybis[1-chloropropane]	0.519866126	4700	0.049 U	0.026 U	0.021 U	0.026 U	0.025 U	0.024 U	0.026 U	0.023 U	0.022 U	0.027 U	0.025 U
2,3,4,6-Tetrachlorophenol	0.364815035	2500	0.16 U	0.087 U	0.07 U	0.088 U	0.082 U	0.082 U	0.085 U	0.078 U	0.075 U	0.089 U	0.082 U
2,4,5-Trichlorophenol	8.145613776	8200	0.041 U	0.022 U	0.017 U	0.022 U	0.021 U	0.02 U	0.021 U	0.02 U	0.019 U	0.022 U	0.021 U
2,4,6-Trichlorophenol	0.023088221	82	0.041 U'	0.022 U	0.017 U	0.022 U	0.021 U	0.02 U	0.021 U	0.02 U	0.019 U	0.022 U	0.021 U
2,4-Dichlorophenol	0.045449398	250	0.049 U'	0.026 U	0.021 U	0.026 U	0.025 U	0.024 U	0.026 U	0.023 U	0.022 U	0.027 U	0.025 U
2,4-Dimethylphenol	0.852194426	1600	0.041 U	0.022 U	0.017 U	0.022 U	0.021 U	0.02 U	0.021 U	0.02 U	0.019 U	0.022 U	0.021 U
2,4-Dinitrophenol	0.087484824	160	0.41 U'	0.22 U'	0.17 U'	0.22 U'	0.21 U'	0.2 U'	0.21 U'	0.2 U'	0.19 U'	0.22 U'	0.21 U'
2,4-Dinitrotoluene	0.064857609	74	0.082 U'	0.044 U	0.035 U	0.044 U	0.041 U	0.041 U	0.043 U	0.039 U	0.037 U	0.045 U	0.041 U
2,6-Dinitrotoluene	0.013473066	15	0.041 U'	0.022 U'	0.017 U'	0.022 U'	0.021 U'	0.02 U'	0.021 U'	0.02 U'	0.019 U'	0.022 U'	0.021 U'
2-Chloronaphthalene	7.735700736	6000	0.033 U	0.017 U	0.014 U	0.018 U	0.016 U	0.016 U	0.017 U	0.016 U	0.015 U	0.018 U	0.016 U
2-Chlorophenol	0.177639222	580	0.041 U	0.022 U	0.017 U	0.022 U	0.021 U	0.02 U	0.021 U	0.02 U	0.019 U	0.022 U	0.021 U
2-Methylnaphthalene	0.371364147	300	1.7	0.095	7.9	0.064	0.069	0.07	1.3	0.061	12	0.93	0.16
2-Methylphenol	1.512187908	4100	0.049 U	0.026 U	0.021 U	0.026 U	0.025 U	0.024 U	0.03 J	0.023 U	0.022 U	0.027 U	0.025 U
2-Nitroaniline	0.160588079	800	0.041 U	0.022 U	0.017 U	0.022 U	0.021 U	0.02 U	0.021 U	0.02 U	0.019 U	0.022 U	0.021 U
2-Nitrophenol	NS	NS	0.049 U	0.026 U	0.021 U	0.026 U	0.025 U	0.024 U	0.026 U	0.023 U	0.022 U	0.027 U	0.025 U
3,3'-Dichlorobenzidine	0.17108	51	0.082 U	0.044 U	0.035 U	0.044 U	0.041 U	0.041 U	0.043 U	0.039 U	0.037 U	0.045 U	0.041 U
3-Nitroaniline	NS	NS	0.082 U	0.044 U	0.035 U	0.044 U	0.041 U	0.041 U	0.043 U	0.039 U	0.037 U	0.045 U	0.041 U
4,6-Dinitro-2-methylphenol	0.005126415	6.6	0.41 U'	0.22 U'	0.17 U'	0.22 U'	0.21 U'	0.2 U'	0.21 U'	0.2 U'	0.19 U'	0.22 U'	0.21 U'
4-Bromophenyl-phenylether	NS	NS	0.041 U	0.022 U	0.017 U	0.022 U	0.021 U	0.02 U	0.021 U	0.02 U	0.019 U	0.022 U	0.021 U
4-Chloro-3-methylphenol	3.314104306	8200	0.049 U	0.026 U	0.021 U	0.026 U	0.025 U	0.024 U	0.026 U	0.023 U	0.022 U	0.027 U	0.025 U
4-Methylphenol	3.043053464	8200	0.16	0.022 U	0.017 U	0.027 J	0.021 U	0.02 U	0.095	0.046 J	0.019 U	0.13	0.031 J
4-Nitroaniline	0.065239201	330	0.082 U'	0.044 U	0.035 U	0.044 U	0.041 U	0.041 U	0.043 U	0.039 U	0.037 U	0.045 U	0.041 U
4-Nitrophenol	NS	NS	0.41 U	0.22 U	0.17 U	0.22 U	0.21 U	0.2 U	0.21 U	0.2 U	0.19 U	0.22 U	0.21 U
Acenaphthene	10.86993107	4500	0.45	0.0044 U	0.0035 U	0.3	0.0041 U	0.0085 J	0.1	0.0039 U	2.4	1.8	0.063
Acenaphthylene	26.13121012	2300	0.0098 U	0.039	0.0042 U	0.58	0.17	0.022	0.11	0.017 J	0.0045 U	0.51	0.082
Acetophenone	1.154200027	12000	0.041 U	0.022 U	0.017 U	0.04 J	0.054 J	0.02 U	0.021 U	0.021 J	0.019 U	0.022 U	0.021 U
Anthracene	118.5127092	23000	0.35	0.04	0.21	2.7	0.16	0.032	0.33	0.022	2.4	2.4	0.16
Atrazine	0.038940001	100	0.16 U'	0.087 U'	0.07 U'	0.088 U'	0.082 U'	0.082 U'	0.085 U'	0.078 U'	0.075 U'	0.089 U'	0.082 U'
Benzaldehyde	0.844643493	8200	0.082 U	0.044 U	0.035 U	0.044 U	0.041 U	0.06 J	0.12 J	0.09 J	0.037 U	0.045 U	0.041 U
Benzo[a]anthracene	2.124000255	210	0.31	0.13	0.028	11	1	0.067	0.87	0.06	1.7	5.8	0.5
Benzo[a]pyrene	1.1	21	0.29	0.14	0.02	4.7	0.4	0.081	1.2	0.072	1.1	5.1	0.54
Benzo[b]fluoranthene	11	210	0.31	0.21	0.0035 U	12	1.6	0.094	1.3	0.098	1.4	7.1	0.6
Benzo[g,h,i]perylene	26.13121012	2300	0.19	0.12	0.038	6.1	0.9	0.061	0.84	0.067	0.59	2.9	0.39
Benzo[k]fluoranthene	110	2100	0.13	0.074	0.0035 U	3.5	0.56	0.037	0.41	0.033	0.43	2.5	0.22
Bis(2-chloroethoxy)methane	0.02699529	250	0.041 U'	0.022 U	0.017 U	0.022 U	0.021 U	0.02 U	0.021 U	0.02 U	0.019 U	0.022 U	0.021 U
Bis(2-chloroethyl)ether	0.000740545	10	0.041 U'	0.022 U'	0.017 U'	0.022 U'	0.021 U'	0.02 U'	0.021 U'	0.02 U'	0.019 U'	0.022 U'	0.021 U'
Bis(2-ethylhexyl) phthalate	28.72800011	1600	0.16 U	0.087 U	0.094 J	0.088 U	0.2 J	0.082 U	0.085 U	0.078 U	0.075 U	0.099 J	0.082 U

Table 1. Summary of Soil Analytical Data. Mueser Rutledge Consulting Engineers PLLC; Alexandria, VA.

Sample ID	VADEQ VRP		BH-04	BH-15	GI-10	GI-11	GI-12	GI-13P	GI-14	GI-15P	PS-02P	PS-04AP	PS-04P
Sample Depth (ft bgs)	Tier II	Tier III	9.0-9.5	5.5-6.0	3.5-4.0	9.5-10.0	5.5-6.0	6.5-7.0	6.5-7.0	7.0-7.5	5.0-5.5	10.5-11.0	5.5-6.0
Lab Sample ID	Residential	Industrial	41062737-1	41062150-1	41061668-1	41063941-1	41063941-2	41063941-3	41063750-2	41063750-1	41061668-2	41062932-1	41063382-1
Sample Date	SSL	SSL	11/8/2021	11/4/2021	11/1/2021	11/18/2021	11/18/2021	11/18/2021	11/17/2021	11/17/2021	11/1/2021	11/10/2021	11/15/2021
Butylbenzylphthalate	46.43201429	12000	0.16 U	0.087 U	0.07 U	0.088 U	0.082 U	0.082 U	0.085 U	0.078 U	0.075 U	0.089 U	0.082 U
Caprolactam	4.930201775	40000	0.082 U	0.044 U	0.035 U	0.044 U	0.041 U	0.041 U	0.043 U	0.039 U	0.037 U	0.045 U	0.041 U
Carbazole	NS	NS	0.041 U	0.022 U	0.017 U	0.45	0.052	0.02 U	0.23	0.02 U	0.019 U	0.98	0.081
Chrysene	1100	21000	0.35	0.15	0.056	9.5	1.1	0.082	1.3	0.081	1.5	6.1	0.54
Dibenz(a,h)anthracene	1.1	21	0.05	0.03	0.007 U	1.5	0.24	0.024	0.28	0.019 J	0.18	0.91	0.11
Dibenzofuran	0.292659524	120	0.29	0.034 J	0.57	2.8	0.039 J	0.02 U	0.3	0.021 J	2.1	1.2	0.088
Diethyl phthalate	12.29406484	66000	0.16 U	0.087 U	0.07 U	0.088 U	0.082 U	0.082 U	0.085 U	0.078 U	0.075 U	0.089 U	0.082 U
Dimethyl phthalate	NS	NS	0.16 U	0.087 U	0.07 U	0.088 U	0.082 U	0.082 U	0.085 U	0.078 U	0.075 U	0.089 U	0.082 U
Di-n-butyl phthalate	4.525211544	8200	0.16 U	0.087 U	0.07 U	0.088 U	0.082 U	0.082 U	0.085 U	0.078 U	0.075 U	0.089 U	0.082 U
Di-n-octyl phthalate	63	820	0.16 U	0.087 U	0.07 U	0.088 U	0.082 U	0.082 U	0.085 U	0.078 U	0.075 U	0.089 U	0.082 U
Fluoranthene	177.7600502	3000	0.48	0.19	0.083	30	0.52	0.11	1.5	0.11	4.4	14	1.1
Fluorene	10.7417977	3000	0.49	0.02 J	1.2	1.8	0.043	0.024	0.44	0.013 J	4.3	1.9	0.12
Hexachlorobenzene	0.251920469	9.6	0.016 U	0.0087 U	0.007 U	0.0088 U	0.0082 U	0.0082 U	0.0085 U	0.0078 U	0.0075 U	0.0089 U	0.0082 U
Hexachlorobutadiene	0.025049634	53	0.049 U'	0.026 U'	0.021 U	0.026 U'	0.025 U	0.024 U	0.026 U'	0.023 U	0.022 U	0.027 U'	0.025 U
Hexachlorocyclopentadiene	0.18	0.75	0.41 U'	0.22 U'	0.17 U	0.22 U'	0.21 U'	0.2 U'	0.21 U'	0.2 U'	0.19 U'	0.22 U'	0.21 U'
Hexachloroethane	0.00753155	46	0.082 U'	0.044 U'	0.035 U'	0.044 U'	0.041 U'	0.041 U'	0.043 U'	0.039 U'	0.037 U'	0.045 U'	0.041 U'
Indeno[1,2,3-cd]pyrene	11	210	0.15	0.097	0.0042 U	6.3	0.9	0.058	0.76	0.054	0.59	2.8	0.33
Isophorone	2.510458804	16000	0.041 U	0.022 U	0.017 U	0.022 U	0.021 U	0.02 U	0.021 U	0.02 U	0.019 U	0.022 U	0.021 U
Naphthalene	0.04013262	59	0.32	0.065	0.65	0.35	0.18	0.28	1	0.044	2.1	0.67	0.13
Nitrobenzene	0.016975011	130	0.041 U'	0.022 U'	0.017 U'	0.022 U'	0.021 U'	0.02 U'	0.021 U'	0.02 U'	0.019 U'	0.022 U'	0.021 U'
N-Nitrosodi-n-propylamine	0.001651802	3.3	0.082 U'	0.044 U'	0.035 U'	0.044 U'	0.041 U'	0.041 U'	0.043 U'	0.039 U'	0.037 U'	0.045 U'	0.041 U'
N-Nitrosodiphenylamine	13.11361029	4700	0.041 U	0.022 U	0.017 U	0.022 U	0.021 U	0.02 U	0.021 U	0.02 U	0.019 U	0.15	0.021 U
Pentachlorophenol	0.027680002	40	0.16 U'	0.087 U'	0.07 U'	0.088 U'	0.082 U'	0.082 U'	0.085 U'	0.078 U'	0.075 U'	0.089 U'	0.082 U'
Phenanthrene	26.13121012	2300	1.7	0.16	1.6	18	0.2	0.08	2.1	0.1	18	12	0.96
Phenol	6.663053687	25000	0.041 U	0.022 U	0.017 U	0.022 U	0.021 U	0.02 U	0.021 U	0.021 J	0.019 U	0.022 U	0.021 U
Pyrene	26.13121012	2300	0.63	0.19	0.13	20	0.39	0.1	1.2	0.092	3.8	12	0.94
VOLATILE ORGANIC COMPOUNDS (mg/kg)													
1,1,1-Trichloroethane	1.394892145	3600	0.12 U H	0.00072 U	0.032 U H	0.00089 U	0.00071 U	0.00087 U	0.00069 U	0.00061 U	0.04 U H	0.046 U	0.00062 U
1,1,2,2-Tetrachloroethane	0.005945941	27	0.082 U'	0.00048 U	0.021 U'	0.00059 U	0.00047 U	0.00046 U	0.00046 U	0.0004 U	0.027 U'	0.031 U'	0.00042 U
1,1,2-Trichloroethane	0.03243196	0.63	0.1 U'	0.0006 U	0.027 U H	0.00074 U	0.00059 U	0.00058 U	0.00058 U	0.00051 U	0.033 U'	0.039 U'	0.00052 U
1,1-Dichloroethane	0.158789558	160	0.1 U H	0.0006 U	0.027 U H	0.00074 U	0.00059 U	0.00073 U	0.00058 U	0.00051 U	0.033 U H	0.039 U	0.00052 U
1,1-Dichloroethene	0.049856452	100	0.1 U'	0.0006 U	0.027 U H	0.00074 U	0.00059 U	0.00073 U	0.00058 U	0.00051 U	0.033 U H	0.039 U	0.00052 U
1,2,3-Trichlorobenzene	0.041586006	93	1 U'	0.006 U	0.27 U'	0.0074 U	0.0059 U	0.0058 U	0.0058 U	0.0051 U	0.33 U'	0.39 U'	0.0052 U
1,2,4-Trichlorobenzene	4.083843881	26	1 U H	0.006 U	0.27 U H	0.0074 U	0.0059 U	0.0073 U	0.0058 U	0.0051 U	0.33 U H	0.39 U	0.0052 U
1,2-Dibromo-3-Chloropropane	0.001728483	0.64	0.2 U'	0.0006 U	0.053 U'	0.00074 U	0.00059 U	0.00073 U	0.00058 U	0.00051 U	0.067 U'	0.077 U'	0.00052 U
1,2-Dibromoethane	0.000281503	1.6	0.082 U'	0.00048 U'	0.021 U'	0.00059 U'	0.00047 U'	0.00058 U'	0.00046 U'	0.0004 U'	0.027 U'	0.031 U'	0.00042 U'
1,2-Dichlorobenzene	11.67123532	930	0.1 U H	0.0006 U	0.027 U H	0.00074 U	0.00059 U	0.00073 U	0.00058 U	0.00051 U	0.033 U H	0.039 U	0.00052 U
1,2-Dichloroethane	0.028338098	14	0.12 U'	0.00072 U	0.032 U'	0.00089 U	0.00071 U	0.00087 U	0.00069 U	0.00061 U	0.04 U'	0.046 U'	0.00062 U
1,2-Dichloropropane	0.033139182	6.6	0.1 U'	0.0006 U	0.027 U H	0.00074 U	0.00059 U	0.00058 U	0.00058 U	0.00051 U	0.033 U H	0.039 U'	0.00052 U
1,3-Dichlorobenzene	1.438708667	110	0.1 U H	0.0006 U	0.027 U H	0.00074 U	0.00059 U	0.00058 U	0.00058 U	0.00051 U	0.033 U H	0.039 U	0.00052 U
1,4-Dichlorobenzene	1.438708667	110	0.082 U H	0.00048 U	0.021 U H	0.00059 U	0.00047 U	0.00046 U	0.00046 U	0.0004 U	0.027 U H	0.031 U	0.00042 U
1,4-Dioxane	0.018886037	240	7.6 U'	0.044 U'	2 U'	0.055 U'	0.044 U'	0.054 U'	0.043 U'	0.037 U'	2.5 U'	2.9 U'	0.038 U'
2-Butanone	2.34328201	19000	0.41 U H	0.0024 J	0.11 U H	0.003 U	0.0032 J	0.0029 U	0.0023 U	0.0044 J	0.13 U H	0.15 U	0.0021 U
2-Hexanone	0.017502057	130	0.2 U'	0.0012 U	0.053 U'	0.0015 U	0.0012 U	0.0015 U	0.0012 U	0.001 U	0.067 U'	0.077 U'	0.001 U
4-Methyl-2-pentanone	2.843680916	14000	0.2 U H	0.0012 U	0.053 U H	0.0015 U	0.0012 U	0.0015 U	0.0012 U	0.001 U	0.067 U H	0.077 U	0.001 U
Acetone	5.735856336	67000	1.2 U H	0.011 J	0.32 U H	0.0089 U	0.026	0.0087 U	0.009 J	0.024	0.4 U H	0.46 U	0.012 J
Benzene	0.051126476	42	0.1 U'	0.0006 U	0.027 U H	0.00086 J	0.00059 U	0.00058 U	0.00058 U	0.00051 U	0.033 U H	0.039 U	0.00052 U

Table 1. Summary of Soil Analytical Data. Mueser Rutledge Consulting Engineers PLLC; Alexandria, VA.

Sample ID	VADEQ VRP		BH-04	BH-15	GI-10	GI-11	GI-12	GI-13P	GI-14	GI-15P	PS-02P	PS-04AP	PS-04P
Sample Depth (ft bgs)	Tier II	Tier III	9.0-9.5	5.5-6.0	3.5-4.0	9.5-10.0	5.5-6.0	6.5-7.0	6.5-7.0	7.0-7.5	5.0-5.5	10.5-11.0	5.5-6.0
Lab Sample ID	Residential	Industrial	41062737-1	41062150-1	41061668-1	41063941-1	41063941-2	41063941-3	41063750-2	41063750-1	41061668-2	41062932-1	41063382-1
Sample Date	SSL	SSL	11/8/2021	11/4/2021	11/1/2021	11/18/2021	11/18/2021	11/18/2021	11/17/2021	11/17/2021	11/1/2021	11/10/2021	11/15/2021
Bromochloromethane	0.04127309	63	0.12 U'	0.00072 U	0.032 U H	0.00089 U	0.00071 U	0.00087 U	0.00069 U	0.00061 U	0.04 U H	0.046 U'	0.00062 U
Bromodichloromethane	0.007049941	13	0.082 U'	0.00048 U	0.021 U'	0.00059 U	0.00047 U	0.00058 U	0.00046 U	0.0004 U	0.027 U'	0.031 U'	0.00042 U
Bromoform	0.175253504	860	1 U'	0.006 U	0.27 U'	0.0074 U	0.0059 U	0.0058 U	0.0058 U	0.0051 U	0.33 U'	0.39 U'	0.0052 U
Bromomethane	0.003786706	3	0.14 U'	0.00084 U	0.037 U'	0.001 U	0.00082 U	0.001 U	0.00081 U	0.00071 U	0.047 U'	0.054 U'	0.00073 U
Carbon disulfide	0.477060965	350	0.12 U H	0.00072 U	0.032 U H	0.11	0.0013 J	0.00087 U	0.00069 U	0.00061 U	0.04 U H	0.046 U	0.00062 U
Carbon tetrachloride	0.038557231	29	0.41 U'	0.0006 U	0.11 U'	0.00074 U	0.00059 U	0.00058 U	0.00058 U	0.00051 U	0.13 U'	0.15 U'	0.00052 U
Chlorobenzene	1.357638703	130	0.1 U H	0.0006 U	0.027 U H	0.00074 U	0.00059 U	0.00058 U	0.00058 U	0.00051 U	0.033 U H	0.039 U	0.00052 U
Chloroethane	11.87715974	5700	0.2 U H	0.0012 U	0.053 U H	0.0015 U	0.0012 U	0.0012 U	0.0012 U	0.001 U	0.067 U H	0.077 U	0.001 U
Chloroform	0.012172316	14	0.12 U'	0.00072 U	0.032 U'	0.00089 U	0.00071 U	0.00087 U	0.00069 U	0.00061 U	0.04 U'	0.046 U'	0.00062 U
Chloromethane	0.097922588	46	0.12 U'	0.00072 U	0.032 U H	0.00089 U	0.00071 U	0.00087 U	0.00069 U	0.00061 U	0.04 U H	0.046 U	0.00062 U
cis-1,2-Dichloroethene	0.411118757	230	0.1 U H	0.0006 U	0.027 U H	0.00074 U	0.00059 U	0.00058 U	0.00058 U	0.00051 U	0.033 U H	0.039 U	0.00052 U
cis-1,3-Dichloropropene	0.027839632	31	0.082 U'	0.00048 U	0.021 U H	0.00059 U	0.00047 U	0.00058 U	0.00046 U	0.0004 U	0.027 U H	0.031 U'	0.00042 U
Cyclohexane	26.60007915	2700	0.1 U H	0.0006 U	0.027 U H	0.00074 U	0.00059 U	0.00073 U	0.00058 U	0.00051 U	0.033 U H	0.039 U	0.00052 U
Dibromochloromethane	0.046356093	390	0.41 U'	0.0006 U	0.11 U'	0.00074 U	0.00059 U	0.00058 U	0.00058 U	0.00051 U	0.13 U'	0.15 U'	0.00052 U
Dichlorodifluoromethane	0.60123901	37	0.12 U H	0.00072 U	0.032 U H	0.00089 U	0.00071 U	0.0007 U	0.00069 U	0.00061 U	0.04 U H	0.046 U	0.00062 U
Ethylbenzene	15.6816858	250	0.082 U H	0.00048 U	0.021 U H	0.0034 J	0.00047 U	0.00058 U	0.00046 U	0.0004 U	0.056 J H	0.082 J	0.00042 U
Freon 113	49.14646171	2800	0.12 U H	0.00072 U	0.032 U H	0.00089 U	0.00071 U	0.00087 U	0.00069 U	0.00061 U	0.04 U H	0.046 U	0.00062 U
Isopropylbenzene	1.472712118	990	0.082 U H	0.00048 U	0.021 U H	0.0034 J	0.00047 U	0.00046 U	0.00046 U	0.0004 U	0.027 U H	0.031 U	0.00042 U
m&p-Xylene	NS	NS	0.2 U H	0.0012 U	0.053 U H	0.0025 J	0.0012 U	0.0012 U	0.0012 U	0.001 U	0.18 J H	0.31 J	0.001 U
Methyl acetate	8.261418719	120000	1.3 H	0.0012 U	0.053 U H	0.0015 U	0.0012 U	0.0015 U	0.0012 U	0.001 U	0.085 J H	0.077 U	0.001 U
Methyl tertiary butyl ether	0.630559603	2100	0.1 U H	0.0006 U	0.027 U H	0.00074 U	0.00059 U	0.00073 U	0.00058 U	0.00051 U	0.033 U H	0.039 U	0.00052 U
Methylcyclohexane	NS	NS	0.12 U H	0.00072 U	0.032 U H	0.00089 U	0.00071 U	0.0007 U	0.00069 U	0.00061 U	0.04 U H	0.046 U	0.00062 U
Methylene Chloride	0.02549754	320	0.41 U'	0.0024 U	0.11 U'	0.003 U	0.0024 U	0.0029 U	0.0023 U	0.002 U	0.13 U'	0.15 U'	0.0021 U
o-Xylene	0.373978434	280	0.082 U H	0.00048 U	0.021 U H	0.0016 J	0.00047 U	0.00058 U	0.00046 U	0.0004 U	0.031 J H	0.044 J	0.00042 U
Styrene	2.203887599	3500	0.082 U H	0.00048 U	0.021 U H	0.00059 U	0.00053 J	0.00046 U	0.00046 U	0.0004 U	0.027 U H	0.031 U	0.00042 U
Tetrachloroethene	0.045259464	39	0.1 U'	0.0006 U	0.027 U H	0.00074 U	0.00059 U	0.00087 J	0.00058 U	0.00051 U	0.033 U H	0.039 U	0.00052 U
Toluene	13.82653693	4700	0.12 U H	0.00072 U	0.032 U H	0.0015 J	0.00071 U	0.0007 U	0.00069 U	0.00061 U	0.04 U H	0.046 U	0.00062 U
trans-1,2-Dichloroethene	0.624870428	2300	0.1 U H	0.0006 U	0.027 U H	0.00074 U	0.00059 U	0.00073 U	0.00058 U	0.00051 U	0.033 U H	0.039 U	0.00052 U
trans-1,3-Dichloropropene	0.027839632	31	0.1 U'	0.0006 U	0.027 U H	0.00074 U	0.00059 U	0.00073 U	0.00058 U	0.00051 U	0.033 U'	0.039 U'	0.00052 U
Trichloroethene	0.035630052	1.9	0.1 U'	0.0006 U	0.027 U H	0.00074 U	0.00059 U	0.00073 U	0.00058 U	0.00051 U	0.033 U H	0.039 U'	0.00052 U
Trichlorofluoromethane	6.56729194	35000	0.14 U H	0.00084 U	0.037 U H	0.001 U	0.00082 U	0.00081 U	0.00081 U	0.00071 U	0.047 U H	0.054 U	0.00073 U
Vinyl chloride	0.013678438	17	0.12 U'	0.00072 U	0.032 U'	0.00089 U	0.00071 U	0.0007 U	0.00069 U	0.00061 U	0.04 U'	0.046 U'	0.00062 U

Notes:
 VADEQ VRP = Virginia Department of Environmental Quality Voluntary Remediation Program.
 Tier II Residential SSL = Tier II Residential Soil Screening Level.
 Tier III Industrial SSL = Tier III Industrial Soil Screening Level.
 ft bgs = Feet below ground surface.
 mg/kg = Milligrams per kilogram.
 Boxed concentrations exceed the VA Tier II Residential SSL.
 Shaded concentrations exceed the VA Tier III Industrial SSL.
 B = Analyte also detected in the laboratory blank.
 H = Sample was analyzed past hold time.
 NS = No standard currently established.
 U = Not detected above laboratory detection limit.
 U' = Laboratory reporting limit exceeds the applicable regulatory standard or criteria being utilized.
 J = Result below the reporting limit (estimated value).
Bold = Detected concentration.

When the applicable state standard applies to mixed isomers and the laboratory reports individual isomers, the total standard is listed for each isomer.

Table 2. Summary of Groundwater Analytical Data. Mueser Rutledge Consulting Engineers PLLC; Alexandria, VA.

Sample ID	VADEQ VRP		GI-13P	GI-15P	PS-02P	PS-04AP	PS-04P
Lab Sample ID	Tier II R	Tier III Cons	41065209-2	41065209-1	41065343-1	41065209-4	41065209-3
Sample Date	GWSL	DC GWSL	12/1/2021	12/1/2021	12/2/2021	12/1/2021	12/1/2021
METALS, TOTAL (µg/l)							
Aluminum	2000	656737.4223	2600	220 J	160 J	850	13000
Antimony	6	78.55973813	16 U'	16 U'	16 U'	16 U'	16 U'
Arsenic	10	197.0212267	16 U'	80 U'	20 J	16 U'	16 U'
Barium	2000	20221.821	120	160	520	66	290
Beryllium	4	55.0252667	1 U	1 U	1 U	1 U	1 U
Cadmium	NS	19.16757941	1 U	1 U	1 U	1 U	1.1 J
Cadmium	5	37.06645486	1 U	1 U	1 U	1 U	1.1 J
Calcium	NS	NS	210000	24000	170000	280000	100000
Chromium	100	NS	4.4 J	1.6 U	1.6 U	1.7 J	27
Cobalt	0.6	2620.577775	1.5 U'	1.5 U'	1.5 U'	2.3 J	9.6
Copper	1300	6567.374223	12 U	12 U	12 U	13 J	77
Iron	1400	459716.1956	7400	54000	39000	4600	41000
Lead	15	NS	7.1 U	7.1 U	8.3 J	20	120
Magnesium	NS	NS	13000	6000	23000	24000	15000
Manganese	NS	91943.23912	2000	1900	430	1400	1100
Manganese	43	1442.447008	2000	1900	430	1400	1100
Mercury	2	0.086047166	0.079 U	0.079 U	0.087 J	0.079 U	0.14 J
Nickel	39	4948.089242	3.8 J	2.1 U	2.1 U	2.1 U	34
Potassium	NS	NS	35000	7800	35000	67000	17000
Selenium	50	3283.687112	16 U	16 U	16 U	16 U	16 U
Silver	9.4	483.5506433	5 U	5 U	5 U	5 U	5 U
Sodium	NS	NS	63000	29000	120000	64000	31000
Thallium	2	26.26949689	8.1 U'	8.1 U'	8.1 U'	8.1 U'	8.1 U'
Vanadium	8.6	398.1405524	6.6 J	1.9 U	1.9 U	1.9 J	33
Zinc	600	236081.0545	8.9 J	3.7 U	10 J	110	160
METALS, DISSOLVED (µg/l)							
Aluminum	2000	656737.4223	160 U	160 U	160 U	160 U	160 U
Antimony	6	78.55973813	16 U'	16 U'	16 U'	16 U'	16 U'
Arsenic	10	197.0212267	16 U'	16 U'	16 U'	16 U'	16 U'
Barium	2000	20221.821	65	120	320	36	160
Beryllium	4	55.0252667	1 U	1 U	1 U	1 U	1 U
Cadmium	NS	19.16757941	1 U	1 U	1 U	1 U	1 U
Cadmium	5	37.06645486	1 U	1 U	1 U	1 U	1 U
Calcium	NS	NS	210000	24000	170000	270000	96000
Chromium	100	NS	1.6 U	1.6 U	1.6 U	1.6 U	4 J
Cobalt	0.6	2620.577775	1.5 U'	1.5 U'	1.5 U'	1.5 U'	1.5 U'
Copper	1300	6567.374223	12 U	12 U	12 U	12 U	12 U
Iron	1400	459716.1956	610	12000	3900	41 U	4100
Lead	15	NS	7.3 U	7.3 U	7.3 U	7.3 U	7.3 U
Magnesium	NS	NS	12000	6000	23000	23000	13000
Manganese	NS	91943.23912	1800	2000	410	1300	770
Manganese	43	1442.447008	1800	2000	410	1300	770
Mercury	2	0.086047166	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U
Nickel	39	4948.089242	2.2 U	2.2 U	2.2 U	2.2 U	2.3 J
Potassium	NS	NS	33000	7700	34000	66000	16000
Selenium	50	3283.687112	16 U	16 U	16 U	16 U	16 U
Silver	9.4	483.5506433	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U
Sodium	NS	NS	64000	29000	120000	64000	32000
Thallium	2	26.26949689	8.3 U'	8.3 U'	8.3 U'	8.3 U'	8.3 U'
Vanadium	8.6	398.1405524	2 U	2 U	2 U	2 U	3.4 J
Zinc	600	236081.0545	3.8 U	3.8 U	3.8 U	7.7 J	5.6 J
PESTICIDES (µg/l)							
Aldrin	0.0092	0.045954512	0.002 U	0.002 U	0.0097 U'	0.019 U'	0.0098 U'
alpha-BHC	0.072	33.08942842	0.003 U	0.0029 U	0.015 U	0.029 U	0.015 U
alpha-Chlordane	2	0.148075288	0.003 U	0.0029 U	0.015 U	0.029 U	0.015 U
beta-BHC	0.25	17.133978	0.0034 U	0.0033 U	0.016 U	0.032 U	0.017 U
delta-BHC	0.072	33.08942842	0.0034 U	0.0033 U	0.016 U	0.032 U	0.017 U
Dieldrin	0.018	1.153469182	0.0053 U	0.0052 U	0.026 U'	0.05 U'	0.026 U'
Endosulfan I	10	458.381212	0.0043 U	0.0042 U	0.021 U	0.041 U	0.021 U
Endosulfan II	10	458.381212	0.015 U	0.015 U	0.073 U	0.14 U	0.074 U
Endosulfan sulfate	11	382.5470399	0.0058 U	0.0057 U	0.028 U	0.055 U	0.028 U
Endrin	2	3.460407546	0.008 U	0.0079 U	0.039 U	0.077 U	0.04 U
Endrin aldehyde	2	3.460407546	0.02 U	0.02 U	0.097 U	0.19 U	0.098 U
Endrin ketone	2	3.460407546	0.005 U	0.0049 U	0.024 U	0.048 U	0.025 U
gamma-BHC (Lindane)	0.2	0.2855663	0.002 U	0.002 U	0.0097 U	0.019 U	0.0098 U
gamma-Chlordane	2	0.148075288	0.0069 U	0.0068 U	0.034 U	0.067 U	0.034 U
Heptachlor	0.4	0.278326709	0.002 U	0.002 U	0.0097 U	0.019 U	0.0098 U
Heptachlor epoxide	0.2	0.22046631	0.0023 U	0.0022 U	0.011 U	0.022 U	0.011 U
Methoxychlor	40	55.16282748	0.03 U	0.029 U	0.15 U	0.29 U	0.15 U
p,p'-DDD	0.0063	0.067097589	0.005 U	0.0049 U	0.024 U'	0.048 U'	0.025 U'
p,p'-DDE	0.46	0.313402885	0.005 U	0.0049 U	0.024 U	0.048 U	0.025 U
p,p'-DDT	1	0.409618945	0.0052 U	0.0051 U	0.025 U	0.049 U	0.026 U
Toxaphene	3	1.419359923	0.3 U	0.29 U	1.5 U'	2.9 U'	1.5 U'
SEMI-VOLATILE ORGANIC COMPOUNDS (µg/l)							
1,1'-Biphenyl	0.083	1.176996851	0.49 U'	0.49 U'	0.47 U'	0.48 U'	0.49 U'
1,2,4,5-Tetrachlorobenzene	0.17	0.224332182	0.49 U'	0.49 U'	0.47 U'	0.48 U'	0.49 U'
2,2'-oxybis[1-chloropropane]	71	126.3975369	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U

Sample ID	VADEQ VRP		GI-13P	GI-15P	PS-02P	PS-04AP	PS-04P
Lab Sample ID	Tier II R	Tier III Cons	41065209-2	41065209-1	41065343-1	41065209-4	41065209-3
Sample Date	GWSL	DC GWSL	12/1/2021	12/1/2021	12/2/2021	12/1/2021	12/1/2021
2,3,4,6-Tetrachlorophenol	24	3688.854508	0.99 U	0.98 U	0.95 U	0.97 U	0.98 U
2,4,5-Trichlorophenol	120	7860.523947	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U
2,4,6-Trichlorophenol	1.2	27.37243063	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U
2,4-Dichlorophenol	4.6	1062.92613	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U
2,4-Dimethylphenol	36	5388.611452	3 U	2.9 U	2.8 U	2.9 U	3 U
2,4-Dinitrophenol	3.9	7323.750775	14 U'	14 U'	13 U'	14 U'	14 U'
2,4-Dinitrotoluene	2.4	1800.758252	0.99 U	0.98 U	0.95 U	0.97 U	0.98 U
2,6-Dinitrotoluene	0.49	891.4837333	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U
2-Chloronaphthalene	75	3201.65974	0.39 U	0.39 U	0.38 U	0.39 U	0.39 U
2-Chlorophenol	9.1	1112.280977	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U
2-Methylnaphthalene	3.6	58.96448512	0.099 U	0.098 U	0.095 U	0.097 U	0.098 U
2-Methylphenol	93	30174.44378	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U
2-Nitroaniline	19	22022.47675	0.99 U	0.98 U	0.95 U	0.97 U	0.98 U
2-Nitrophenol	NS	NS	0.99 U	0.98 U	0.95 U	0.97 U	0.98 U
3,3'-Dichlorobenzidine	1.3	837.5258626	3.9 U'	3.9 U'	3.8 U'	3.9 U'	3.9 U'
3-Nitroaniline	NS	1120	2 U	2 U	1.9 U	1.9 U	2 U
4,6-Dinitro-2-methylphenol	0.15	190.0703344	7.9 U'	7.8 U'	7.6 U'	7.8 U'	7.9 U'
4-Bromophenyl-phenylether	NS	NS	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U
4-Chloro-3-methylphenol	140	4261.469466	0.99 U	0.98 U	0.95 U	0.97 U	0.98 U
4-Methylphenol	190	3058.130791	1.2 J	0.49 U	0.47 U	0.48 U	0.49 U
4-Nitroaniline	7.8	3690.307177	0.89 U	0.88 U	0.85 U	0.87 U	0.89 U
4-Nitrophenol	NS	NS	9.9 U	9.8 U	9.5 U	9.7 U	9.8 U
Acenaphthene	53	2945.096411	0.099 U	0.098 U	0.14 J	0.097 U	0.18 J
Acenaphthylene	12	1429.234234	0.099 U	0.098 U	0.095 U	0.097 U	0.098 U
Acetophenone	190	211154.3466	0.99 U	0.98 U	0.95 U	0.97 U	0.98 U
Anthracene	180	7851.307527	0.099 U	0.098 U	0.095 U	0.097 U	0.11 J
Atrazine	3	438.9501124	0.99 U	0.98 U	0.95 U	0.97 U	0.98 U
Benzaldehyde	190	52980.72232	0.99 U	0.98 U	0.95 U	0.97 U	0.98 U
Benzo[a]anthracene	0.3	69.32812458	0.099 U	0.098 U	0.095 U	0.15 J	0.18 J
Benzo[a]pyrene	0.2	0.292761964	0.11 U	0.11 U	0.1 U	0.11 U	0.2 J
Benzo[b]fluoranthene	2.5	121.7310057	0.099 U	0.098 U	0.095 U	0.11 J	0.24 J
Benzo[g,h,i]perylene	12	1429.234234	0.099 U	0.098 U	0.095 U	0.097 U	0.14 J
Benzo[k]fluoranthene	25	816.63841	0.099 U	0.098 U	0.095 U	0.097 U	0.098 U
Bis(2-chloroethoxy)methane	5.9	14741.66249	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U
Bis(2-chloroethyl)ether	0.14	22.54724757	0.49 U'	0.49 U'	0.47 U'	0.48 U'	0.49 U'
Bis(2-ethylhexyl) phthalate	6	31.58425085	2 U	2 U	1.9 U	1.9 U	2 U
Butylbenzylphthalate	160	26964.26981	2 U	2 U	1.9 U	1.9 U	2 U
Caprolactam	990	300631.086	3 U	2.9 U	2.8 U	2.9 U	3 U
Carbazole	NS	NS	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U
Chrysene	250	9946.389092	0.099 U	0.098 U	0.095 U	0.097 U	0.18 J
Dibenz(a,h)anthracene	0.25	7.509812915	0.099 U	0.098 U	0.095 U	0.097 U	0.098 U
Dibenzofuran	0.79	48.35577113	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U
Diethyl phthalate	1500	1164829.519	2 U	2 U	1.9 U	1.9 U	2 U
Dimethyl phthalate	NS	112000	2 U	2 U	1.9 U	1.9 U	2 U
Di-n-butyl phthalate	90	15363.39191	2 U	2 U	1.9 U	1.9 U	2 U
Di-n-octyl phthalate	20	112000	4.9 U	4.9 U	4.7 U	4.8 U	4.9 U
Fluoranthene	80	311.3649652	0.099 U	0.098 U	0.095 U	0.26 J	0.44 J
Fluorene	29	4365.906593	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U
Hexachlorobenzene	1	0.024656993	0.11 U'	0.11 U'	0.1 U'	0.11 U'	0.11 U'
Hexachlorobutadiene	0.65	8.974453139	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U
Hexachlorocyclopentadiene	50	35.16113398	4.9 U	4.9 U	4.7 U	4.8 U	4.9 U
Hexachloroethane	0.62	180.7070867	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U
Indeno[1,2,3-cd]pyrene	2.5	58.48502117	0.11 U	0.11 U	0.1 U	0.11 U	0.14 J
Isophorone	380	790493.2217	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U
Naphthalene	0.61	0.771564753	0.099 U	0.098 U	0.095 U	0.097 U	0.098 U
Nitrobenzene	1.3	14.83924061	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U
N-Nitrosodi-n-propylamine	0.11	377.4096704	0.49 U'	0.49 U'	0.47 U'	0.48 U'	0.49 U'
N-Nitrosodiphenylamine	120	92933.28619	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U
Pentachlorophenol	1	5.538679651	0.99 U	0.98 U	0.95 U	0.97 U	0.98 U
Phenanthrene	12	1429.234234	0.11 U	0.11 U	0.1 U	0.14 J	0.38 J
Phenol	580	147266.6916	0.49 U	0.49 U	0.47 U	0.48 U	0.49 U
Pyrene	12	1429.234234	0.099 U	0.098 U	0.095 U	0.9	0.41 J
VOLATILE ORGANIC COMPOUNDS (µg/l)							
1,1,1-Trichloroethane	200	1164.171753	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,1,2,2-Tetrachloroethane	0.76	37.38591465	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,1,2-Trichloroethane	5	0.496407394	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,1-Dichloroethane	28	919.3132376	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,1-Dichloroethene	7	15.49755778	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2,3-Trichlorobenzene	0.7	116.2166833	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2,4-Trichlorobenzene	70	5.603848371	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dibromo-3-Chloropropane	0.2	0.507216016	0.3 U'	0.3 U'	0.3 U'	0.3 U'	0.3 U'
1,2-Dibromoethane	0.05	0.596735168	0.2 U'	0.2 U'	0.2 U'	0.2 U'	0.2 U'
1,2-Dichlorobenzene	600	487.4924402	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloroethane	5	14.6750344	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloropropane	5	7.055089757	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,3-Dichlorobenzene	75	164.941197	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	75	164.941197	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane	4.6	1834.306814	29 U'	29 U'	29 U'	29 U'	29 U'
2-Butanone	560	357.7263433	0.5 U	0.5 U	0.5 U	0.5 U	1.8 J
2-Hexanone	3.8	9.796743663	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U

Sample ID Lab Sample ID Sample Date	VADEQ VRP		GI-13P	GI-15P	PS-02P	PS-04AP	PS-04P
	Tier II R GWSL	Tier III Cons DC GWSL	41065209-2 12/1/2021	41065209-1 12/1/2021	41065343-1 12/2/2021	41065209-4 12/1/2021	41065209-3 12/1/2021
4-Methyl-2-pentanone	630	229.7686248	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	1400	13351.95903	0.72 J	0.7 U	0.7 U	0.7 U	13 J
Benzene	5	14.16075537	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Bromochloromethane	8.3	23.78173479	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromodichloromethane	1.3	5.269273972	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromoform	33	2299.698112	1 U	1 U	1 U	1 U	1 U
Bromomethane	0.75	19.54112852	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Carbon disulfide	81	122.139616	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Carbon tetrachloride	5	42.96740541	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chlorobenzene	100	105.2851305	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chloroethane	2100	629.4603899	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloroform	2.2	54.34711573	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chloromethane	19	432.2887823	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	70	2255.245023	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
cis-1,3-Dichloropropene	3.9	7.813832837	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Cyclohexane	1300	3325.295851	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	8.7	17029.11746	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Dichlorodifluoromethane	20	213.9957406	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Ethylbenzene	700	591.353103	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Freon 113	1000	13664.93223	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Isopropylbenzene	45	19.90011441	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
m&p-Xylene	NS	NS	2 U	2 U	2 U	2 U	2 U
Methyl acetate	2000	26.65533119	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Methyl tertiary butyl ether	140	523.6274694	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Methylcyclohexane	NS	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene Chloride	5	194.7116808	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
o-Xylene	19	20.90172507	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Styrene	100	580.5524496	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Tetrachloroethene	5	10.17784414	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Toluene	1000	949.0867302	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,2-Dichloroethene	100	157.0493168	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
trans-1,3-Dichloropropene	3.9	7.813832837	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Trichloroethene	5	0.493957257	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Trichlorofluoromethane	520	234.0187962	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Vinyl chloride	2	11.90722062	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

Notes:

VADEQ VRP = Virginia Department of Environmental Quality Voluntary Remediation Program.

Tier II R GWSL = Tier II Residential Groundwater Screening Levels.

Tier III Cons DC GWSL = Tier III Construction Direct Contact Groundwater Screening Level.

µg/l = Micrograms per liter.

Boxed concentrations exceed the VA Tier II R GWSL.

Shaded concentrations exceed the VA Tier III Cons DC GWSL.

NS = No standard currently established.

U = Not detected above laboratory detection limit.

U' = Laboratory reporting limit exceeds the applicable regulatory standard or criteria being utilized.

J = Result below the reporting limit (estimated value).

Bold = Detected concentration.

When the applicable state standard applies to mixed isomers and the laboratory reports individual isomers, the total standard is listed for each isomer.

Table 3. Summary of Sediment Analytical Data. Mueser Rutledge Consulting Engineers PLLC; Alexandria, VA.

Sample ID	VADEQ	USEPA	BH-03	BH-10	BH-12	BH-16	BH-20	PS-04
Sample Depth (ft bgs)	VRP	Region 3	0.0-0.5	14.5-15.0	7.5-8.0	0.0-0.5	9.5-10.0	0.0-0.5
Lab Sample ID	Tier II	Screening	41065597-1	41065068-1	41066240-1	41067738-2	41066823-1	41067201-1
Sample Date	SED SL	Value	12/3/2021	11/30/2021	12/9/2021	12/20/2021	12/14/2021	12/15/2021
GENERAL CHEMISTRY (%)								
Clay	NS	NS	30	15	6.5	18.5	33	20
Gravel	NS	NS	0.25 U	31.1	0.25 U	0.25 U	2.1	0.6 J
Sand	NS	NS	3.9	16.6	19.9	10	6.9	10.9
Silt	NS	NS	66.1	37.3	73.7	71.5	58	68.5
GENERAL CHEMISTRY (% passed)								
0.001 mm	NS	NS	19	9	2	2.5	8	0.25 U
0.002 mm	NS	NS	21	10.5	4	8	17.5	6
0.005 mm	NS	NS	30	15	12	18.5	33	20
0.02 mm	NS	NS	68	35	45	61	68	48
0.05 mm	NS	NS	89	48	71	80	84.5	70
0.064 mm	NS	NS	94	50.5	78	87	89	84
0.075 mm	NS	NS	96.1	52.3	80.2	90	91	88.5
0.15 mm	NS	NS	98.4	54.2	84	90.2	91.6	88.8
0.3 mm	NS	NS	99.3	57	86.2	90.4	92.2	89.2
0.6 mm	NS	NS	99.4	59.7	88.7	90.8	92.6	89.7
1.18 mm	NS	NS	99.4	62.2	92.1	91.4	93.3	90.7
19 mm	NS	NS	100	78.5	100	100	100	99.4
2.36 mm	NS	NS	99.6	63.5	98.5	99.3	94.3	98.5
3.35 mm	NS	NS	99.9	66	99.6	99.8	96.8	99.1
37.5 mm	NS	NS	100	100	100	100	100	99.4
4.75 mm	NS	NS	100	68.9	100	100	97.9	99.4
75 mm	NS	NS	100	100	100	100	100	99.4
GENERAL CHEMISTRY (mg/kg)								
Total Organic Carbon	NS	NS	36000	28000	34000	35000	17000	37000
METALS (mg/kg)								
Aluminum	77000	NS	28000	25000	24000	27000	30000	25000
Antimony	31	2	1.55 U	1.05 U	1.4 U	1.35 U	2.8 J	1.35 U
Arsenic	35	9.8	6.7	33	12	12	5.5 U	10
Barium	15000	NS	180	210	170	190	220	180
Beryllium	160	NS	1.5	1.1	1.4	1.5	1.4	1.4
Cadmium	71	0.99	0.27 J	4	1.3	0.75 J	1.2	0.45 J
Calcium	NS	NS	7000	4100	5500	5300	3400	6700 B
Chromium	NS	43.4	39	150	40	40	40	37
Cobalt	23	50	22	22	24	23	22	21
Copper	3100	31.6	46	130	69	67	35	50
Iron	55000	20000	40000	41000	34000	40000	38000	35000
Lead	4000	35.8	36	120	52	42	26	38
Magnesium	NS	NS	4500	4400	4400	4800	5200	4400
Manganese	1800	460	830	630	1100	850	1000	960
Mercury	11	0.18	0.18 F1	0.95	0.27	0.25	0.35	0.18
Nickel	1500	22.7	39	41	38	39	33	35
Potassium	NS	NS	2800	2500	2600	3100	3100	2600
Selenium	390	2	1.4 U	0.95 U	1.2 U	5.1 J	1.15 U	4.6 J
Silver	390	1	0.37 U	4.3	0.325 U	0.32 U	0.305 U	0.32 U
Sodium	NS	NS	200	97 J	130 J	140 J	77 J	130 J
Thallium	0.78	NS	1.2 U'	0.8 U'	1.05 U'	1.05 U'	1 U'	1.05 U'
Vanadium	390	NS	65	57	51	55	72	50
Zinc	23000	121	170	490	230	210	100	170
POLYCHLORINATED BIPHENYLS (mg/kg)								
PCB-1016	4.1	0.0598	0.0055 U	0.00445 U	0.005 U	0.0055 U F1	0.00415 U	0.006 U
PCB-1221	20	0.0598	0.0055 U	0.00445 U	0.005 U	0.0055 U	0.00415 U	0.006 U
PCB-1232	17	0.0598	0.0055 U	0.00445 U	0.005 U	0.0055 U	0.00415 U	0.006 U
PCB-1242	23	0.0598	0.0055 U	0.00445 U	0.005 U	0.0055 U	0.00415 U	0.006 U
PCB-1248	23	0.0598	0.02 J	0.00445 U	0.005 U	0.0055 U	0.00415 U	0.006 U
PCB-1254	1.2	0.0598	0.015 J	0.08	0.029 J	0.007 U	0.005 U	0.0075 U
PCB-1260	24	0.0598	0.016 J	0.076	0.024 J	0.02 J F1	0.029	0.0075 U
PESTICIDES (mg/kg)								
Aldrin	2.3	0.002	0.0009 U	0.00285 U'	0.0026 U'	0.0009 U	0.00065 U	0.00385 U'
alpha-BHC	8.6	0.006	0.0009 U	0.00285 U	0.0026 U	0.0009 U	0.00065 U	0.00385 U
alpha-Chlordane	35	NS	0.0009 U	0.00285 U	0.0026 U	0.0009 U	0.00065 U	0.00385 U
beta-BHC	30	0.005	0.0023 U	0.055	0.007 U'	0.00235 U	0.0017 U	0.01 U'
delta-BHC	8.6	6.4	0.00235 U	0.0075 U	0.007 U	0.0024 U	0.00175 U	0.01 U
Dieldrin	3.2	0.0019	0.00175 U	0.0055 U'	0.005 U'	0.00175 U	0.0013 U	0.0075 U'
Endosulfan I	470	0.0029	0.00115 U	0.0037 U'	0.0034 U'	0.00115 U	0.00085 U	0.005 U'
Endosulfan II	470	0.014	0.006 U	0.0185 U'	0.017 U'	0.006 U	0.0043 U	0.025 U'
Endosulfan sulfate	380	0.0054	0.00175 U	0.0055 U'	0.005 U	0.00175 U	0.0013 U	0.0075 U'
Endrin	19	0.00222	0.00355 U'	0.0115 U'	0.0105 U'	0.00365 U'	0.00265 U'	0.0155 U'
Endrin aldehyde	19	NS	0.00175 U	0.0055 U	0.005 U	0.00175 U	0.0013 U	0.0075 U
Endrin ketone	19	NS	0.00315 U	0.01 U	0.009 U	0.0032 U	0.00235 U	0.0135 U
gamma-BHC (Lindane)	21	0.00237	0.0025 J	0.00355 U'	0.0065 J	0.0011 U	0.00325 U'	0.00475 U'
gamma-Chlordane	35	NS	0.0013 U	0.0042 U	0.028	0.00135 U	0.00095 U	0.0055 U
Heptachlor	13	0.068	0.00165 U	0.005 U	0.00475 U	0.00165 U	0.0012 U	0.007 U
Heptachlor epoxide	1	0.00247	0.0009 U	0.00285 U'	0.0026 U'	0.0009 U	0.00065 U	0.00385 U'
Methoxychlor	320	0.0187	0.0095 U	0.0305 U'	0.0275 U'	0.0095 U	0.007 U	0.041 U'
p,p'-DDD	1.9	0.00488	0.00175 U	0.0055 U'	0.005 U'	0.00175 U	0.0013 U	0.0075 U'

Sample ID	VADEQ	USEPA	BH-03	BH-10	BH-12	BH-16	BH-20	PS-04
Sample Depth (ft bgs)	VRP	Region 3	0.0-0.5	14.5-15.0	7.5-8.0	0.0-0.5	9.5-10.0	0.0-0.5
Lab Sample ID	Tier II	Screening	41065597-1	41065068-1	41066240-1	41067738-2	41066823-1	41067201-1
Sample Date	SED SL	Value	12/3/2021	11/30/2021	12/9/2021	12/20/2021	12/14/2021	12/15/2021
p,p'-DDE	23	0.00316	0.00175 U	0.0055 U'	0.011 J	0.00175 U	0.0013 U	0.0075 U'
p,p'-DDT	37	NS	0.00415 U	0.0135 U	0.012 U	0.0042 U	0.0083 J	0.018 U
Toxaphene	5.7	0.0001	0.075 U'	0.235 U'	0.215 U'	0.075 U'	0.055 U'	0.32 U'
SEMI-VOLATILE ORGANIC COMPOUNDS (mg/kg)								
1,1'-Biphenyl	47	1.22	0.0175 U	0.082 J	0.016 U	0.0175 U	0.034 J	0.0185 U
1,2,4,5-Tetrachlorobenzene	23	1.09	0.0175 U	0.0285 U	0.016 U	0.0175 U	0.013 U	0.0185 U
2,2'-oxybis[1-chloropropane]	3100	NS	0.021 U	0.034 U	0.019 U	0.0215 U	0.0155 U	0.0225 U
2,3,4,6-Tetrachlorophenol	1900	0.284	0.07 U	0.115 U	0.065 U	0.07 U	0.05 U	0.075 U
2,4,5-Trichlorophenol	6300	NS	0.0175 U	0.0285 U	0.016 U	0.0175 U	0.013 U	0.0185 U
2,4,6-Trichlorophenol	63	0.213	0.0175 U	0.0285 U	0.016 U	0.0175 U	0.013 U	0.0185 U
2,4-Dichlorophenol	190	0.117	0.021 U	0.034 U	0.019 U	0.0215 U	0.0155 U	0.0225 U
2,4-Dimethylphenol	1300	0.029	0.0175 U	0.0285 U	0.016 U	0.0175 U	0.013 U	0.0185 U
2,4-Dinitrophenol	130	NS	0.175 U	0.285 U	0.16 U	0.175 U	0.13 U	0.185 U
2,4-Dinitrotoluene	130	0.0416	0.035 U	0.055 U'	0.0315 U	0.0355 U	0.0255 U	0.0375 U
2,6-Dinitrotoluene	19	NS	0.0175 U	0.0285 U	0.016 U	0.0175 U	0.013 U	0.0185 U
2-Chloronaphthalene	4800	NS	0.014 U	0.0225 U	0.0125 U	0.014 U	0.0105 U	0.015 U
2-Chlorophenol	390	0.0312	0.0175 U	0.0285 U	0.016 U	0.0175 U	0.013 U	0.0185 U
2-Methylnaphthalene	240	0.0202	0.013 J	0.53	0.05	0.017 J	0.17	0.13
2-Methylphenol	3200	NS	0.021 U	0.034 U	0.019 U	0.0215 U	0.0155 U	0.0225 U
2-Nitroaniline	630	NS	0.0175 U	0.0285 U	0.016 U	0.0175 U	0.013 U	0.0185 U
2-Nitrophenol	NS	NS	0.021 U	0.034 U	0.019 U	0.0215 U	0.0155 U	0.0225 U
3,3'-Dichlorobenzidine	120	0.127	0.035 U	0.055 U	0.0315 U	0.0355 U	0.0255 U	0.0375 U
3-Nitroaniline	NS	NS	0.035 U	0.055 U	0.0315 U	0.0355 U	0.0255 U	0.0375 U
4,6-Dinitro-2-methylphenol	5.1	NS	0.175 U	0.285 U	0.16 U	0.175 U	0.13 U	0.185 U
4-Bromophenyl-phenylether	NS	1.23	0.0175 U	0.0285 U	0.016 U	0.0175 U	0.013 U	0.0185 U
4-Chloro-3-methylphenol	6300	NS	0.021 U	0.034 U	0.019 U	0.0215 U	0.0155 U	0.0225 U
4-Methylphenol	6300	0.67	0.0175 U	0.17	0.016 U	0.0175 U	0.92	0.0185 U
4-Nitroaniline	250	NS	0.035 U	0.055 U	0.0315 U	0.0355 U	0.0255 U	0.0375 U
4-Nitrophenol	NS	NS	0.175 U	0.285 U	0.16 U	0.175 U	0.13 U	0.185 U
Acenaphthene	3600	0.0067	0.0086 J	0.65	0.039	0.018 J	0.16	0.039
Acenaphthylene	1800	0.0059	0.0094 J	0.33	0.081	0.03 J	0.015 J	0.1
Acetophenone	7800	NS	0.0175 U	0.0285 U	0.016 U	0.0175 U	0.013 U	0.0185 U
Anthracene	18000	0.0572	0.014 J	0.56	0.092	0.023 J	0.069	0.061
Atrazine	240	0.00662	0.07 U'	0.115 U'	0.065 U'	0.07 U'	0.05 U'	0.075 U'
Benzaldehyde	7800	NS	0.035 U	0.055 U	0.13 J	0.086 J	0.1 J	0.087 J
Benzo[a]anthracene	110	0.108	0.029 J	1.3	0.18	0.064	0.088	0.14
Benzo[a]pyrene	11	0.15	0.035	1.1	0.22	0.08	0.081	0.18
Benzo[b]fluoranthene	110	0.0272	0.053	1.5	0.31	0.097	0.088	0.18
Benzo[g,h,i]perylene	1800	0.17	0.035	0.71	0.19 B	0.075	0.11	0.13
Benzo[k]fluoranthene	1100	0.0272	0.018 J	0.55	0.13	0.047	0.038	0.088
Bis(2-chloroethoxy)methane	190	NS	0.0175 U	0.0285 U	0.016 U	0.0175 U	0.013 U	0.0185 U
Bis(2-chloroethyl)ether	23	NS	0.0175 U	0.0285 U	0.016 U	0.0175 U	0.013 U	0.0185 U
Bis(2-ethylhexyl) phthalate	1300	0.18	0.07 U	0.115 U	0.38	0.07 U	0.05 U	0.075 U
Butylbenzylphthalate	13000	10.9	0.07 U	0.115 U	0.065 U	0.07 U	0.05 U	0.075 U
Caprolactam	31000	NS	0.035 U	0.055 U	0.0315 U	0.0355 U	0.0255 U	0.0375 U
Carbazole	NS	NS	0.0175 U	0.091 J	0.016 U	0.0175 U	0.028 J	0.0185 U
Chrysene	11000	0.166	0.048	1.4	0.26	0.094	0.083	0.21
Dibenz(a,h)anthracene	11	0.033	0.007 U	0.21	0.048	0.03 J	0.03	0.0075 U
Dibenzofuran	78	0.415	0.0175 U	0.28	0.016 U	0.0175 U	0.083	0.0185 U
Diethyl phthalate	51000	0.603	0.07 U	0.115 U	0.065 U	0.07 U	0.05 U	0.075 U
Dimethyl phthalate	NS	NS	0.07 U	0.115 U	0.065 U	0.07 U	0.05 U	0.075 U
Di-n-butyl phthalate	6300	6.47	0.07 U	0.115 U	0.065 U	0.07 U	0.05 U	0.075 U
Di-n-octyl phthalate	630	NS	0.07 U	0.115 U	0.065 U	0.07 U	0.05 U	0.075 U
Fluoranthene	2400	0.423	0.067	2.8	0.46	0.13	0.26	0.28
Fluorene	2400	0.0774	0.0081 J	0.53	0.045	0.017 J	0.13	0.055
Hexachlorobenzene	21	0.02	0.007 U	0.0115 U	0.0065 U	0.007 U	0.005 U	0.0075 U
Hexachlorobutadiene	78	NS	0.021 U	0.034 U	0.019 U	0.0215 U	0.0155 U	0.0225 U
Hexachlorocyclopentadiene	1.8	NS	0.175 U	0.285 U	0.16 U	0.175 U	0.13 U	0.185 U
Hexachloroethane	45	1.027	0.035 U	0.055 U	0.0315 U	0.0355 U	0.0255 U	0.0375 U
Indeno[1,2,3-cd]pyrene	110	0.017	0.031 J	0.63	0.14	0.047	0.058	0.12
Isophorone	13000	NS	0.0175 U	0.0285 U	0.016 U	0.0175 U	0.013 U	0.0185 U
Naphthalene	130	0.176	0.007 U	0.45	0.046	0.021 J	0.41	0.072
Nitrobenzene	130	NS	0.0175 U	0.0285 U	0.016 U	0.0175 U	0.013 U	0.0185 U
N-Nitrosodi-n-propylamine	7.8	NS	0.035 U	0.055 U	0.0315 U	0.0355 U	0.0255 U	0.0375 U
N-Nitrosodiphenylamine	11000	2.68	0.0175 U	0.0285 U	0.016 U	0.0175 U	0.013 U	0.0185 U
Pentachlorophenol	100	0.504	0.07 U	0.115 U	0.065 U	0.07 U	0.05 U	0.075 U
Phenanthrene	1800	0.204	0.034 J	2.2	0.2	0.063	0.34	0.16
Phenol	19000	0.42	0.0175 U	0.0285 U	0.016 U	0.0175 U	0.013 U	0.0185 U
Pyrene	1800	0.195	0.06	2.5	0.39	0.13	0.22	0.29
VOLATILE ORGANIC COMPOUNDS (mg/kg)								
1,1,1-Trichloroethane	8100	0.0302	0.00085 U	0.04 U'	0.0495 U'	0.00075 U	0.035 U'	0.00095 U
1,1,2,2-Tetrachloroethane	60	1.36	0.00055 U	0.0265 U	0.033 U	0.000495 U	0.0235 U	0.00065 U
1,1,2-Trichloroethane	1.5	1.24	0.0007 U	0.033 U	0.041 U	0.0014 J	0.029 U	0.0008 U
1,1-Dichloroethane	360	NS	0.0007 U	0.033 U	0.041 U	0.0006 U	0.029 U	0.0008 U
1,1-Dichloroethene	230	0.031	0.0007 U	0.033 U'	0.041 U'	0.0006 U	0.029 U	0.0008 U
1,2,3-Trichlorobenzene	63	0.858	0.007 U	0.33 U	0.41 U	0.006 U	0.29 U	0.008 U
1,2,4-Trichlorobenzene	58	2.1	0.007 U	0.33 U	0.41 U	0.006 U	0.29 U	0.008 U
1,2-Dibromo-3-Chloropropane	0.53	NS	0.0007 U	0.065 U	0.08 U	0.0006 U	0.06 U	0.0008 U

Sample ID	VADEQ	USEPA	BH-03	BH-10	BH-12	BH-16	BH-20	PS-04
Sample Depth (ft bgs)	VRP	Region 3	0.0-0.5	14.5-15.0	7.5-8.0	0.0-0.5	9.5-10.0	0.0-0.5
Lab Sample ID	Tier II	Screening	41065597-1	41065068-1	41066240-1	41067738-2	41066823-1	41067201-1
Sample Date	SED SL	Value	12/3/2021	11/30/2021	12/9/2021	12/20/2021	12/14/2021	12/15/2021
1,2-Dibromoethane	3.6	NS	0.00055 U	0.0265 U	0.033 U	0.000495 U	0.0235 U	0.00065 U
1,2-Dichlorobenzene	1800	0.0165	0.0007 U	0.033 U'	0.041 U'	0.0006 U	0.029 U'	0.0008 U
1,2-Dichloroethane	31	NS	0.00085 U	0.04 U	0.0495 U	0.00075 U	0.035 U	0.00095 U
1,2-Dichloropropane	16	NS	0.0007 U	0.033 U	0.041 U	0.0006 U	0.029 U	0.0008 U
1,3-Dichlorobenzene	260	4.43	0.0007 U	0.033 U	0.041 U	0.0006 U	0.029 U	0.0008 U
1,4-Dichlorobenzene	260	0.599	0.00055 U	0.0265 U	0.033 U	0.000495 U	0.0235 U	0.00065 U
1,4-Dioxane	530	NS	0.05 U	2.45 U	3.05 U	0.046 U	2.15 U	0.06 U
2-Butanone	27000	NS	0.038	0.135 U	0.165 U	0.015 J	0.115 U	0.05
2-Hexanone	200	NS	0.0014 U	0.065 U	0.08 U	0.00125 U	0.06 U	0.0016 U
4-Methyl-2-pentanone	33000	NS	0.0014 U	0.065 U	0.08 U	0.00125 U	0.06 U	0.0016 U
Acetone	61000	NS	0.16	0.4 U	0.495 U	0.073	0.35 U	0.21
Benzene	82	NS	0.0007 U	0.033 U	0.041 U	0.0006 U	0.029 U	0.0008 U
Bromochloromethane	150	NS	0.00085 U	0.04 U	0.0495 U	0.00075 U	0.035 U	0.00095 U
Bromodichloromethane	29	NS	0.00055 U	0.0265 U	0.033 U	0.000495 U	0.0235 U	0.00065 U
Bromoform	1600	0.654	0.007 U	0.33 U	0.41 U	0.006 U	0.29 U	0.008 U
Bromomethane	6.8	NS	0.00095 U	0.0465 U	0.06 U	0.00085 U	0.041 U	0.0011 U
Carbon disulfide	770	0.000851	0.00085 U	0.04 U'	0.0495 U'	0.00075 U	0.035 U'	0.00095 U'
Carbon tetrachloride	65	0.0642	0.0007 U	0.135 U'	0.165 U'	0.0006 U	0.115 U'	0.0008 U
Chlorobenzene	280	0.00842	0.0007 U	0.033 U'	0.041 U'	0.0006 U	0.029 U'	0.0008 U
Chloroethane	14000	NS	0.0014 U	0.065 U	0.08 U	0.00125 U	0.06 U	0.0016 U
Chloroform	32	NS	0.00085 U	0.04 U	0.0495 U	0.00075 U	0.035 U	0.00095 U
Chloromethane	110	NS	0.00085 U	0.04 U	0.0495 U	0.00075 U	0.035 U	0.00095 U
cis-1,2-Dichloroethene	160	NS	0.0007 U	0.033 U	0.041 U	0.0006 U	6.3	0.0008 U
cis-1,3-Dichloropropene	72	NS	0.00055 U	0.0265 U	0.033 U	0.000495 U	0.0235 U	0.00065 U
Cyclohexane	6500	NS	0.0007 U	0.033 U	0.041 U	0.0006 U	0.029 U	0.0008 U
Dibromochloromethane	830	NS	0.0007 U	0.135 U	0.165 U	0.0006 U	0.115 U	0.0008 U
Dichlorodifluoromethane	87	NS	0.00085 U	0.04 U	0.0495 U	0.00075 U	0.035 U	0.00095 U
Ethylbenzene	580	1.1	0.00055 U	0.0265 U	0.033 U	0.000495 U	0.0235 U	0.00065 U
Freon 113	6700	NS	0.00085 U	0.04 U	0.0495 U	0.00075 U	0.035 U	0.00095 U
Isopropylbenzene	1900	0.086	0.00055 U	0.0265 U	0.033 U	0.000495 U	0.0235 U	0.00065 U
m&p-Xylene	NS	NS	0.0014 U	0.065 U	0.08 U	0.00125 U	0.06 U	0.0016 U
Methyl acetate	78000	NS	0.0014 U	0.47 J	0.23 J	0.00125 U	0.12 J	0.0016 U
Methyl tertiary butyl ether	4700	NS	0.0007 U	0.033 U	0.041 U	0.0006 U	0.029 U	0.0008 U
Methylcyclohexane	NS	NS	0.00085 U	0.04 U	0.0495 U	0.00075 U	0.035 U	0.00095 U
Methylene Chloride	350	NS	0.00275 U	0.135 U	0.165 U	0.0025 U	0.115 U	0.0032 U
o-Xylene	650	NS	0.00055 U	0.0265 U	0.033 U	0.000495 U	0.0235 U	0.00065 U
Styrene	6000	0.559	0.00055 U	0.0265 U	0.033 U	0.000495 U	0.0235 U	0.00065 U
Tetrachloroethene	81	0.468	0.0007 U	0.033 U	0.041 U	0.0006 U	0.029 U	0.0008 U
Toluene	4900	NS	0.00085 U	0.1 J	0.0495 U	0.00075 U	0.13 J	0.00095 U
trans-1,2-Dichloroethene	1600	1.05	0.0007 U	0.033 U	0.041 U	0.0006 U	0.088 J	0.0008 U
trans-1,3-Dichloropropene	72	NS	0.0007 U	0.033 U	0.041 U	0.0006 U	0.029 U	0.0008 U
Trichloroethene	4.1	0.0969	0.0007 U	0.033 U	0.041 U	0.0006 U	0.029 U	0.0008 U
Trichlorofluoromethane	23000	NS	0.00095 U	0.0465 U	0.06 U	0.00085 U	0.041 U	0.0011 U
Vinyl chloride	5.9	NS	0.00085 U	0.18 J	0.0495 U	0.00075 U	0.97	0.00095 U

Notes:

VADEQ VRP = Virginia Department of Environmental Quality Voluntary Remediation Program.

Tier II SED SL = Tier II Sediment Screening Level.

USEPA = United States Environmental Protection Agency.

ft bgs = Feet below ground surface.

% = Percent.

mg/kg = Milligrams per kilogram.

Boxed concentrations exceed the Tier II SED SL.

Shaded concentrations exceed the USEPA Region 3 Screening Values.

— = Sample not analyzed.

B = Analyte also detected in the laboratory blank.

F1 = MS and/or MSD recovery exceeds control limits.

NS = No standard currently established.

U = Not detected above the method detection limit. Note that half of the method detection limit was reported.

U' = One half of the method detection limit exceeds the applicable regulatory standard or criteria being utilized.

J = Result below the reporting limit (estimated value).

Bold = Detected concentration.

When the applicable state standard applies to mixed isomers and the laboratory reports individual isomers, the total standard is listed for each isomer.

Table 4. Summary of Surface Water Analytical Data. Mueser Rutledge Consulting Engineers PLLC; Alexandria, VA.

Sample ID	VADEQ VRP		USEPA	BH-03	BH-10	BH-12	BH-16	BH-20	PS-04
Lab Sample ID	Tier II	Tier II	Region 3	41065597-2	41065020-3	41065020-4	41067738-1	41065020-1	41065020-2
Sample Date	Fresh SWSL	Marine SWSL	Screening Value	12/3/2021	11/29/2021	11/29/2021	12/20/2021	11/29/2021	11/29/2021
GENERAL CHEMISTRY (µg/l)									
Total Organic Carbon	NS	NS	NS	2000	2500	2800	2100	2300	2400
METALS, TOTAL (µg/l)									
Aluminum	NS	NS	87	280 J	150 J	1200	190 J	180 J	500
Antimony	640	640	30	8 U	8 U	8 U	8 U	8 U	8 U
Arsenic	150	36	5	8 U'	8 U'	8 U'	8 U'	8 U'	8 U'
Barium	NS	NS	4	38	38	45	42	36	40
Beryllium	NS	NS	0.66	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cadmium	0.72	7.9	0.25	0.5 U'	0.5 U'	0.5 U'	0.5 U'	0.5 U'	0.5 U'
Calcium	NS	NS	116000	40000	39000	38000	45000	37000	38000
Chromium	NS	NS	85	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Cobalt	NS	NS	23	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
Copper	9	6	9	6 U	6 U	6 U	6 U	6 U	6 U
Iron	NS	NS	300	480	390	1900	350	380	860
Lead	11	8.8	2.5	3.55 U'	3.55 U'	3.55 U'	3.55 U'	3.55 U'	3.55 U'
Magnesium	NS	NS	82000	10000	9600	9600	12000	9300	9500
Manganese	NS	NS	120	42	47	120	40	42	64
Mercury	0.77	0.94	0.026	0.0395 U'	0.0395 U'	0.0395 U'	0.0395 U'	0.0395 U'	0.0395 U'
Nickel	20	8.2	52	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U	1.05 U
Potassium	NS	NS	53000	2800	3600	4000	3300	3200	3600
Selenium	5	71	1	8 U'	8 U'	8 U'	8 U'	8 U'	8 U'
Silver	NS	NS	3.2	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sodium	NS	NS	680000	14000	15000	16000	16000	14000	15000
Thallium	0.47	0.47	0.8	4.05 U'	4.05 U'	4.05 U'	4.05 U'	4.05 U'	4.05 U'
Vanadium	NS	NS	20	0.95 U	0.95 U	2.2 J	0.95 U	0.95 U	0.95 U
Zinc	120	81	120	5.6 J	5.7 J	12 J	4.8 J	1.85 U	8.5 J
METALS, DISSOLVED (µg/l)									
Aluminum	NS	NS	87	80 U	80 U	80 U	80 U	80 U	80 U
Antimony	640	640	30	8 U	8 U	8 U	8 U	8 U	8 U
Arsenic	150	36	5	8 U'	8 U'	8 U'	8 U'	8 U'	8 U'
Barium	NS	NS	4	35	37	37	40	36	37
Beryllium	NS	NS	0.66	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cadmium	0.72	7.9	0.25	0.5 U'	0.5 U'	0.5 U'	0.5 U'	0.5 U'	0.5 U'
Calcium	NS	NS	116000	40000	37000	37000	45000	37000	37000
Chromium	NS	NS	85	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Cobalt	NS	NS	23	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
Copper	9	6	9	6 U	6 U	6 U	6 U	6 U	6 U
Iron	NS	NS	300	53 J	85 J	79 J	50 J	55 J	71 J
Lead	11	8.8	2.5	3.65 U'	3.65 U'	3.65 U'	3.65 U'	3.65 U'	3.65 U'
Magnesium	NS	NS	82000	10000	9400	9400	12000	9300	9400
Manganese	NS	NS	120	26	14	4.9 J	1.55 U	8.2 J	7.2 J
Mercury	0.77	0.94	0.026	0.0395 U'	0.0395 U'	0.0395 U'	0.0395 U'	0.0395 U'	0.0395 U'
Nickel	20	8.2	52	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Potassium	NS	NS	53000	2800	3600	3800	3300	3300	3600
Selenium	5	71	1	8 U'	8 U'	8 U'	8 U'	8 U'	8 U'
Silver	NS	NS	3.2	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
Sodium	NS	NS	680000	14000	14000	16000	17000	13000	15000
Thallium	0.47	0.47	0.8	4.15 U'	4.15 U'	4.15 U'	4.15 U'	4.15 U'	4.15 U'
Vanadium	NS	NS	20	1 U	1 U	1 U	1 U	1 U	1 U
Zinc	120	81	120	4.7 J	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
PESTICIDES (µg/l)									
Aldrin	0.000077	0.000077	3	0.001 U'	0.00105 U'	0.001 U'	0.00105 U'	0.00105 U'	0.001 U'
alpha-BHC	0.0039	0.0039	2.2	0.0015 U	0.0016 U	0.00155 U	0.0016 U	0.00155 U	0.0015 U
alpha-Chlordane	NS	NS	NS	0.0015 U	0.0016 U	0.00155 U	0.0016 U	0.00155 U	0.0015 U
beta-BHC	0.14	0.14	NS	0.0017 U	0.0018 U	0.01 U	0.0018 U	0.00175 U	0.0017 U
delta-BHC	NS	NS	141	0.0017 U	0.0018 U	0.00175 U	0.0018 U	0.00175 U	0.0017 U
Dieldrin	0.000012	0.000012	0.056	0.0027 U'	0.00285 U'	0.0027 U'	0.0028 U'	0.0027 U'	0.0027 U'
Endosulfan I	0.056	0.0087	0.051	0.0022 U	0.0023 U	0.0022 U	0.00225 U	0.0022 U	0.00215 U
Endosulfan II	0.056	0.0087	0.051	0.0075 U	0.008 U	0.0075 U	0.008 U	0.0075 U	0.0075 U
Endosulfan sulfate	40	40	NS	0.00295 U	0.0031 U	0.00295 U	0.00305 U	0.00295 U	0.00295 U
Endrin	0.03	0.0023	0.036	0.0041 U'	0.00435 U'	0.00415 U'	0.00425 U'	0.00415 U'	0.0041 U'
Endrin aldehyde	1	1	NS	0.01 U	0.0105 U	0.01 U	0.0105 U	0.0105 U	0.01 U
Endrin ketone	NS	NS	NS	0.00255 U	0.00265 U	0.00255 U	0.00265 U	0.00255 U	0.00255 U
gamma-BHC (Lindane)	4.4	4.4	0.01	0.001 U	0.00105 U	0.001 U	0.00105 U	0.00105 U	0.001 U
gamma-Chlordane	NS	NS	NS	0.00355 U	0.00375 U	0.00355 U	0.0037 U	0.0036 U	0.00355 U
Heptachlor	0.000059	0.000059	0.0019	0.001 U'	0.00105 U'	0.001 U'	0.00105 U'	0.00105 U'	0.001 U'
Heptachlor epoxide	0.00032	0.00032	0.0019	0.00115 U'	0.00125 U'	0.00115 U'	0.0012 U'	0.0012 U'	0.00115 U'
Methoxychlor	0.02	0.02	0.019	0.015 U	0.016 U	0.0155 U	0.016 U	0.0155 U	0.015 U
p,p'-DDD	0.0012	0.0012	0.011	0.00255 U'	0.00265 U'	0.00255 U'	0.00265 U'	0.00255 U'	0.00255 U'
p,p'-DDE	0.00018	0.00018	NS	0.00255 U'	0.00265 U'	0.00255 U'	0.00265 U'	0.00255 U'	0.00255 U'
p,p'-DDT	0.0003	0.0003	0.0005	0.00265 U'	0.0028 U'	0.00265 U'	0.00275 U'	0.00265 U'	0.00265 U'
Toxaphene	0.0002	0.0002	0.0002	0.15 U'	0.16 U'	0.155 U'	0.16 U'	0.155 U'	0.15 U'
SEMI-VOLATILE ORGANIC COMPOUNDS (µg/l)									
1,1'-Biphenyl	NS	NS	14	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
1,2,4,5-Tetrachlorobenzene	0.03	0.03	3	0.25 U'	0.255 U'	0.255 U'	0.255 U'	0.25 U'	0.255 U'
2,2'-oxybis[1-chloropropane]	4000	4000	NS	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
2,3,4,6-Tetrachlorophenol	NS	NS	1.2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2,4,5-Trichlorophenol	600	600	NS	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U

Sample ID Lab Sample ID Sample Date	VADEQ VRP		USEPA	BH-03	BH-10	BH-12	BH-16	BH-20	PS-04
	Tier II	Tier II	Region 3	41065597-2	41065020-3	41065020-4	41067738-1	41065020-1	41065020-2
	Fresh SWSL	Marine SWSL	Screening Value	12/3/2021	11/29/2021	11/29/2021	12/20/2021	11/29/2021	11/29/2021
2,4,6-Trichlorophenol	28	28	4.9	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
2,4-Dichlorophenol	60	60	11	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
2,4-Dimethylphenol	3000	3000	NS	1.5 U	1.5 U	1.5 U	1.55 U	1.5 U	1.55 U
2,4-Dinitrophenol	300	300	NS	7 U	7 U	7 U	7 U	7 U	7 U
2,4-Dinitrotoluene	17	17	44	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2,6-Dinitrotoluene	NS	NS	81	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
2-Chloronaphthalene	1000	1000	NS	0.2 U	0.2 U	0.2 U	0.205 U	0.2 U	0.205 U
2-Chlorophenol	800	800	24	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
2-Methylnaphthalene	NS	NS	4.7	0.05 U	0.05 U	0.05 U	9	0.05 U	0.05 U
2-Methylphenol	NS	NS	13	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
2-Nitroaniline	NS	NS	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Nitrophenol	NS	NS	1920	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
3,3'-Dichlorobenzidine	1.5	1.5	4.5	2 U'	2 U'	2 U'	2.05 U'	2 U'	2.05 U'
3-Nitroaniline	NS	NS	NS	1 U	1 U	1 U	1.05 U	1 U	1 U
4,6-Dinitro-2-methylphenol	30	30	NS	4.05 U	4.05 U	4.05 U	4.1 U	4.05 U	4.1 U
4-Bromophenyl-phenylether	NS	NS	1.5	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
4-Chloro-3-methylphenol	2000	2000	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methylphenol	NS	NS	543	0.25 U	0.255 U	0.255 U	1 J	0.25 U	0.255 U
4-Nitroaniline	NS	NS	NS	0.455 U	0.455 U	0.455 U	0.46 U	0.455 U	0.46 U
4-Nitrophenol	NS	NS	60	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthene	90	90	5.8	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Acenaphthylene	NS	NS	NS	0.05 U	0.05 U	0.05 U	0.34 J	0.05 U	0.05 U
Acetophenone	NS	NS	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Anthracene	400	400	0.012	0.05 U'	0.05 U'	0.05 U'	0.05 U'	0.05 U'	0.05 U'
Atrazine	NS	NS	1.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzaldehyde	NS	NS	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzo[a]anthracene	0.013	0.013	0.018	0.05 U'	0.05 U'	0.05 U'	0.05 U'	0.05 U'	0.05 U'
Benzo[a]pyrene	0.0013	0.0013	0.015	0.055 U'	0.055 U'	0.055 U'	0.055 U'	0.055 U'	0.055 U'
Benzo[b]fluoranthene	0.013	0.013	NS	0.05 U'	0.05 U'	0.05 U'	0.05 U'	0.05 U'	0.05 U'
Benzo[g,h,i]perylene	NS	NS	NS	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Benzo[k]fluoranthene	0.13	0.13	NS	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Bis(2-chloroethoxy)methane	NS	NS	NS	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
Bis(2-chloroethyl)ether	22	22	NS	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
Bis(2-ethylhexyl) phthalate	3.7	3.7	16	1 U	1 U	1 U	1.05 U	1 U	1 U
Butylbenzylphthalate	1	1	19	1 U	1 U	1 U	1.05 U'	1 U	1 U
Caprolactam	NS	NS	NS	1.5 U	1.5 U	1.5 U	1.55 U	1.5 U	1.55 U
Carbazole	NS	NS	NS	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
Chrysene	1.3	1.3	NS	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dibenz(a,h)anthracene	0.0013	0.0013	NS	0.05 U'	0.05 U'	0.05 U'	0.05 U'	0.05 U'	0.05 U'
Dibenzofuran	NS	NS	3.7	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
Diethyl phthalate	600	600	210	1 U	1 U	1 U	1.05 U	1 U	1 U
Dimethyl phthalate	2000	2000	NS	1 U	1 U	1 U	1.05 U	1 U	1 U
Di-n-butyl phthalate	30	30	19	8.8 B	1 U	1 U	1.05 U	1 U	1 U
Di-n-octyl phthalate	NS	NS	22	2.5 U	2.55 U	2.55 U	2.55 U	2.5 U	2.55 U
Fluoranthene	20	20	0.04	0.05 U'	0.05 U'	0.05 U'	0.05 U'	0.05 U'	0.05 U'
Fluorene	70	70	3	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Hexachlorobenzene	0.00079	0.00079	0.0003	0.055 U'	0.055 U'	0.055 U'	0.055 U'	0.055 U'	0.055 U'
Hexachlorobutadiene	0.1	0.1	1.3	0.25 U'	0.255 U'	0.255 U'	0.255 U'	0.25 U'	0.255 U'
Hexachlorocyclopentadiene	4	4	NS	2.5 U	2.55 U	2.55 U	2.55 U	2.5 U	2.55 U
Hexachloroethane	1	1	12	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
Indeno[1,2,3-cd]pyrene	0.013	0.013	NS	0.055 U'	0.055 U'	0.055 U'	0.055 U'	0.055 U'	0.055 U'
Isophorone	18000	18000	NS	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
Naphthalene	NS	NS	1.1	0.05 U	0.11 J	0.05 U	13	0.05 U	0.05 U
Nitrobenzene	600	600	NS	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
N-Nitrosodi-n-propylamine	5.1	5.1	NS	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
N-Nitrosodiphenylamine	60	60	210	0.25 U	0.255 U	0.255 U	0.255 U	0.25 U	0.255 U
Pentachlorophenol	0.4	0.4	0.5	0.5 U'	0.5 U'	0.5 U'	0.5 U'	0.5 U'	0.5 U'
Phenanthrene	NS	NS	0.4	0.055 U	0.055 U	0.055 U	0.11 J	0.055 U	0.055 U
Phenol	300000	300000	4	0.25 U	0.255 U	0.255 U	0.67 J	0.25 U	0.255 U
Pyrene	30	30	0.025	0.05 U'	0.05 U'	0.05 U'	0.05 U'	0.05 U'	0.05 U'
VOLATILE ORGANIC COMPOUNDS (µg/l)									
1,1,1-Trichloroethane	200000	200000	11	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,1,2,2-Tetrachloroethane	30	30	610	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,1,2-Trichloroethane	89	89	1200	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,1-Dichloroethane	NS	NS	47	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,1-Dichloroethene	20000	20000	25	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2,3-Trichlorobenzene	NS	NS	8	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	0.76	0.76	24	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2-Dibromo-3-Chloropropane	NS	NS	NS	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2-Dibromoethane	NS	NS	NS	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
1,2-Dichlorobenzene	3000	3000	0.7	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
1,2-Dichloroethane	6500	6500	100	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,2-Dichloropropane	310	310	NS	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,3-Dichlorobenzene	10	10	150	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,4-Dichlorobenzene	900	900	26	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
1,4-Dioxane	NS	NS	NS	14.5 U	14.5 U	14.5 U	14.5 U	14.5 U	14.5 U
2-Butanone	NS	NS	14000	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
2-Hexanone	NS	NS	99	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
4-Methyl-2-pentanone	NS	NS	170	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

Sample ID Lab Sample ID Sample Date	VADEQ VRP		USEPA Region 3 Screening Value	BH-03	BH-10	BH-12	BH-16	BH-20	PS-04
	Tier II	Tier II		41065597-2	41065020-3	41065020-4	41067738-1	41065020-1	41065020-2
	Fresh SWSL	Marine SWSL	12/3/2021	11/29/2021	11/29/2021	12/20/2021	11/29/2021	11/29/2021	
Acetone	NS	NS	1500	1.5 J	1.2 J	1.7 J	1.5 J	1.6 J	1.2 J
Benzene	160	160	370	0.15 U	0.39 J	0.15 U	3.1	0.15 U	0.15 U
Bromochloromethane	NS	NS	NS	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Bromodichloromethane	270	270	NS	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Bromoform	1200	1200	320	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	10000	10000	NS	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Carbon disulfide	NS	NS	0.92	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Carbon tetrachloride	50	50	13.3	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Chlorobenzene	800	800	1.3	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Chloroethane	NS	NS	NS	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chloroform	2000	2000	1.8	0.15 U	0.72 J	0.64 J	0.36 J	0.4 J	0.53 J
Chloromethane	NS	NS	NS	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
cis-1,2-Dichloroethene	NS	NS	NS	0.15 U	0.34 J	0.15 U	0.15 U	0.15 U	0.15 U
cis-1,3-Dichloropropene	NS	NS	NS	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Cyclohexane	NS	NS	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	210	210	NS	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dichlorodifluoromethane	NS	NS	NS	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Ethylbenzene	130	130	90	0.2 U	0.2 U	0.2 U	13	0.2 U	0.2 U
Freon 113	NS	NS	NS	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Isopropylbenzene	NS	NS	2.6	0.1 U	0.1 U	0.1 U	1.4 J	0.1 U	0.1 U
m&p-Xylene	NS	NS	NS	1 U	1 U	1 U	51	1 U	1 U
Methyl acetate	NS	NS	NS	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Methyl tertiary butyl ether	NS	NS	11070	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Methylcyclohexane	NS	NS	NS	0.25 U	0.25 U	0.25 U	0.76 J	0.25 U	0.25 U
Methylene Chloride	1000	1000	98.1	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
o-Xylene	NS	NS	NS	0.2 U	0.4 J	0.2 U	24	0.2 U	0.2 U
Styrene	NS	NS	72	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Tetrachloroethene	290	290	111	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Toluene	520	520	2	1.4	1.6	0.1 U	59	0.1 U	0.1 U
trans-1,2-Dichloroethene	4000	4000	970	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
trans-1,3-Dichloropropene	NS	NS	NS	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Trichloroethene	70	70	21	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Trichlorofluoromethane	NS	NS	NS	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Vinyl chloride	16	16	930	0.1 U	0.45 J	0.1 U	0.1 U	0.1 U	0.1 U

Notes:

VADEQ VRP = Virginia Department of Environmental Quality Voluntary Remediation Program.

Tier II Fresh SWSL = Tier II Fresh Surface Water Screening Level.

Tier II Marine SWSL = Tier II Marine Surface Water Screening Level.

USEPA = United States Environmental Protection Agency.

µg/l = Micrograms per liter.

Boxed concentrations exceed the Tier II Fresh SWSL.

Shaded concentrations exceed the USEPA Region 3 Screening Values.

+ = Concentrations exceed the Tier II Marine SWSL.

B = Analyte also detected in the laboratory blank.

NS = No standard currently established.

U = Not detected above the method detection limit. Note that half of the method detection limit was reported.

U' = One half of the method detection limit exceeds the applicable regulatory standard or criteria being utilized.

J = Result below the reporting limit (estimated value).

Bold = Detected concentration.

When the applicable state standard applies to mixed isomers and the laboratory reports individual isomers, the total standard is listed for each isomer.

Phase II Environmental Site Assessment
Union and King Street, Alexandria, Virginia

ATTACHMENTS

- A. Analytical Laboratory Reports
- B. Soil and Sediment Boring Logs

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Phase II Environmental Site Assessment
Union and King Street, Alexandria, Virginia

ATTACHMENT A

Laboratory Analytical Reports

DRAFT

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-61668-1
Client Project/Site: Mueser - Alexandria, VA

For:
Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
11/12/2021 4:55:27 PM

Kelly Tessier, Project Manager
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LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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Kelly Tessier

Kelly Tessier
Project Manager
11/12/2021 4:55:27 PM



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Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
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.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
[^] 5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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
PQL	Practical Quantitation Limit

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Glossary (Continued)

Abbreviation **These commonly used abbreviations may or may not be present in this report.**

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

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Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Job ID: 410-61668-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-61668-1

Receipt

The samples were received on 11/3/2021 11:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

The following samples were received outside of holding time: GI-10 (3.5-4.0) (410-61668-1) and PS-021 (5.0-5.5) (410-61668-2).

GC/MS VOA

Method 8260C: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a prep with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the prep within holding time: GI-10 (3.5-4.0) (410-61668-1) and PS-021 (5.0-5.5) (410-61668-2).

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: PS-021 (5.0-5.5) (410-61668-2). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: GI-10 (3.5-4.0) (410-61668-1). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) analyzed on 410-192672 is compliant under 8260C/D method criteria for Chloromethane. The software does not display the % Drift data to the whole number as is listed in the method (i.e. limit of 20%). When applying the evaluation to a whole number, the check passes the criteria with a value of 20% Drift.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-192672 recovered above the upper control limit for Acetone, Bromomethane, Dibromochloromethane, Chloroethane and Vinyl chloride. Non-detections of the affected analytes are reported. Any detections are considered estimated.

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

GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) associated with batch 410-191109 recovered above the upper control limit for 2-Chloronaphthalene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

PCBs

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

Pesticides

Method 8081B: The following samples were diluted due to the nature of the sample matrix: GI-10 (3.5-4.0) (410-61668-1) and PS-021 (5.0-5.5) (410-61668-2). Elevated reporting limits (RLs) are provided.

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

Metals

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

Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Job ID: 410-61668-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

General Chemistry

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

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Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Client Sample ID: GI-10 (3.5-4.0)

Lab Sample ID: 410-61668-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1'-Biphenyl	1300		38	17	ug/Kg	1	✳	8270D	Total/NA
Anthracene	210		17	3.5	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	28		17	3.5	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	20		17	3.5	ug/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	38		17	3.5	ug/Kg	1	✳	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	94	J	170	70	ug/Kg	1	✳	8270D	Total/NA
Chrysene	56		17	3.5	ug/Kg	1	✳	8270D	Total/NA
Dibenzofuran	570		38	17	ug/Kg	1	✳	8270D	Total/NA
Fluoranthene	83		17	3.5	ug/Kg	1	✳	8270D	Total/NA
Fluorene	1200		17	3.5	ug/Kg	1	✳	8270D	Total/NA
Naphthalene	650		17	7.0	ug/Kg	1	✳	8270D	Total/NA
Phenanthrene	1600		17	4.2	ug/Kg	1	✳	8270D	Total/NA
Pyrene	130		17	3.5	ug/Kg	1	✳	8270D	Total/NA
2-Methylnaphthalene - DL	7900		170	52	ug/Kg	10	✳	8270D	Total/NA
PCB-1254 (1C)	15	J	18	6.7	ug/Kg	1	✳	8082A	Total/NA
Aluminum	3900		15	7.9	mg/Kg	1	✳	6010D	Total/NA
Arsenic	2.6		2.2	1.0	mg/Kg	1	✳	6010D	Total/NA
Barium	36		0.37	0.11	mg/Kg	1	✳	6010D	Total/NA
Beryllium	0.26	J	0.37	0.074	mg/Kg	1	✳	6010D	Total/NA
Cadmium	0.13	J	0.37	0.074	mg/Kg	1	✳	6010D	Total/NA
Calcium	15000		37	8.9	mg/Kg	1	✳	6010D	Total/NA
Chromium	15		1.1	0.13	mg/Kg	1	✳	6010D	Total/NA
Cobalt	4.7		0.37	0.11	mg/Kg	1	✳	6010D	Total/NA
Copper	8.4		1.5	0.57	mg/Kg	1	✳	6010D	Total/NA
Iron	10000		15	4.6	mg/Kg	1	✳	6010D	Total/NA
Lead	12		1.1	0.44	mg/Kg	1	✳	6010D	Total/NA
Magnesium	1400	^5-	7.4	3.0	mg/Kg	1	✳	6010D	Total/NA
Manganese	240		0.74	0.39	mg/Kg	1	✳	6010D	Total/NA
Nickel	5.0		0.74	0.19	mg/Kg	1	✳	6010D	Total/NA
Potassium	670		37	15	mg/Kg	1	✳	6010D	Total/NA
Selenium	1.3	J	3.7	1.1	mg/Kg	1	✳	6010D	Total/NA
Sodium	88		74	34	mg/Kg	1	✳	6010D	Total/NA
Zinc	19		1.5	0.74	mg/Kg	1	✳	6010D	Total/NA
Vanadium	18		0.74	0.32	mg/Kg	1	✳	6010D	Total/NA
Mercury	0.025	J	0.059	0.024	mg/Kg	1	✳	7471B	Total/NA

Client Sample ID: PS-021 (5.0-5.5)

Lab Sample ID: 410-61668-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	56	J H	330	27	ug/Kg	50	✳	8260C	Total/NA
m&p-Xylene	180	J H	330	67	ug/Kg	50	✳	8260C	Total/NA
Methyl acetate	85	J H	330	67	ug/Kg	50	✳	8260C	Total/NA
o-Xylene	31	J H	330	27	ug/Kg	50	✳	8260C	Total/NA
1,1'-Biphenyl	300		41	19	ug/Kg	1	✳	8270D	Total/NA
Acenaphthene	2400		19	3.7	ug/Kg	1	✳	8270D	Total/NA
Anthracene	2400		19	3.7	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	1700		19	3.7	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	1100		19	3.7	ug/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	1400		19	3.7	ug/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	590		19	3.7	ug/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	430		19	3.7	ug/Kg	1	✳	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Client Sample ID: PS-021 (5.0-5.5) (Continued)

Lab Sample ID: 410-61668-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chrysene	1500		19	3.7	ug/Kg	1	✳	8270D	Total/NA
Dibenz(a,h)anthracene	180		19	7.5	ug/Kg	1	✳	8270D	Total/NA
Dibenzofuran	2100		41	19	ug/Kg	1	✳	8270D	Total/NA
Fluoranthene	4400		19	3.7	ug/Kg	1	✳	8270D	Total/NA
Fluorene	4300		19	3.7	ug/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	590		19	4.5	ug/Kg	1	✳	8270D	Total/NA
Naphthalene	2100		19	7.5	ug/Kg	1	✳	8270D	Total/NA
Pyrene	3800		19	3.7	ug/Kg	1	✳	8270D	Total/NA
2-Methylnaphthalene - DL	12000		190	56	ug/Kg	10	✳	8270D	Total/NA
Phenanthrene - DL	18000		190	45	ug/Kg	10	✳	8270D	Total/NA
PCB-1260 (1C)	760		96	36	ug/Kg	5	✳	8082A	Total/NA
Aluminum	3300		19	10	mg/Kg	1	✳	6010D	Total/NA
Arsenic	3.1		2.9	1.3	mg/Kg	1	✳	6010D	Total/NA
Barium	36		0.48	0.14	mg/Kg	1	✳	6010D	Total/NA
Beryllium	0.26	J	0.48	0.096	mg/Kg	1	✳	6010D	Total/NA
Calcium	18000		48	11	mg/Kg	1	✳	6010D	Total/NA
Chromium	9.8		1.4	0.17	mg/Kg	1	✳	6010D	Total/NA
Cobalt	5.6		0.48	0.14	mg/Kg	1	✳	6010D	Total/NA
Copper	9.9		1.9	0.74	mg/Kg	1	✳	6010D	Total/NA
Iron	9400		19	5.9	mg/Kg	1	✳	6010D	Total/NA
Lead	19		1.4	0.57	mg/Kg	1	✳	6010D	Total/NA
Magnesium	1100	^5-	9.6	3.8	mg/Kg	1	✳	6010D	Total/NA
Manganese	210		0.96	0.50	mg/Kg	1	✳	6010D	Total/NA
Nickel	6.0		0.96	0.25	mg/Kg	1	✳	6010D	Total/NA
Potassium	500		48	20	mg/Kg	1	✳	6010D	Total/NA
Zinc	21		1.9	0.96	mg/Kg	1	✳	6010D	Total/NA
Vanadium	14		0.96	0.41	mg/Kg	1	✳	6010D	Total/NA
Mercury	0.046	J	0.066	0.027	mg/Kg	1	✳	7471B	Total/NA

DRAFT

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Client Sample ID: GI-10 (3.5-4.0)

Lab Sample ID: 410-61668-1

Date Collected: 11/01/21 09:15

Matrix: Solid

Date Received: 11/03/21 11:00

Percent Solids: 94.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	21	U H H3	270	21	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
trans-1,3-Dichloropropene	27	U H H3	270	27	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Ethylbenzene	21	U H H3	270	21	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Styrene	21	U H H3	270	21	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
1,4-Dichlorobenzene	21	U H H3	270	21	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
1,2-Dibromoethane	21	U H H3	270	21	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
1,2-Dichloroethane	32	U H H3	270	32	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
4-Methyl-2-pentanone	53	U H H3	530	53	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Methylcyclohexane	32	U H H3	270	32	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Toluene	32	U H H3	270	32	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Chlorobenzene	27	U H H3	270	27	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Cyclohexane	27	U H H3	270	27	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
1,2,4-Trichlorobenzene	270	U H H3	530	270	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
1,4-Dioxane	2000	U H H3	13000	2000	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Dibromochloromethane	110	U H H3	270	110	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Tetrachloroethene	27	U H H3	270	27	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
cis-1,2-Dichloroethene	27	U H H3	270	27	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
trans-1,2-Dichloroethene	27	U H H3	270	27	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Methyl tertiary butyl ether	27	U H H3	270	27	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
m&p-Xylene	53	U H H3	270	53	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
1,3-Dichlorobenzene	27	U H H3	270	27	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Carbon tetrachloride	110	U H H3	270	110	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
2-Hexanone	53	U H H3	530	53	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Acetone	320	U H H3	1100	320	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Chloroform	32	U H H3	270	32	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Benzene	27	U H H3	270	27	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
1,1,1-Trichloroethane	32	U H H3	270	32	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Bromomethane	37	U H H3 *+	270	37	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Chloromethane	32	U H H3 *+	270	32	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Bromochloromethane	32	U H H3	270	32	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Chloroethane	53	U H H3 *+	270	53	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Vinyl chloride	32	U H H3 *+	270	32	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Methylene Chloride	110	U H H3	270	110	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Carbon disulfide	32	U H H3	270	32	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Bromoform	270	U H H3	530	270	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Bromodichloromethane	21	U H H3	270	21	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
1,1-Dichloroethane	27	U H H3	270	27	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
1,1-Dichloroethene	27	U H H3	270	27	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Trichlorofluoromethane	37	U H H3	270	37	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Dichlorodifluoromethane	32	U H H3	270	32	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Freon 113	32	U H H3	530	32	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
1,2-Dichloropropane	27	U H H3	270	27	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
2-Butanone	110	U H H3	530	110	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
1,1,2-Trichloroethane	27	U H H3	270	27	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Trichloroethene	27	U H H3	270	27	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
Methyl acetate	53	U H H3	270	53	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
1,1,2,2-Tetrachloroethane	21	U H H3	270	21	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
1,2,3-Trichlorobenzene	270	U H H3	530	270	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50
o-Xylene	21	U H H3	270	21	ug/Kg	✱	11/03/21 15:42	11/09/21 21:46	50

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Client Sample ID: GI-10 (3.5-4.0)

Lab Sample ID: 410-61668-1

Date Collected: 11/01/21 09:15

Matrix: Solid

Date Received: 11/03/21 11:00

Percent Solids: 94.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	27	U H H3	270	27	ug/Kg	☼	11/03/21 15:42	11/09/21 21:46	50
1,2-Dibromo-3-Chloropropane	53	U H H3	270	53	ug/Kg	☼	11/03/21 15:42	11/09/21 21:46	50
Isopropylbenzene	21	U H H3	270	21	ug/Kg	☼	11/03/21 15:42	11/09/21 21:46	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		54 - 135				11/03/21 15:42	11/09/21 21:46	50
4-Bromofluorobenzene (Surr)	96		50 - 131				11/03/21 15:42	11/09/21 21:46	50
Dibromofluoromethane (Surr)	97		50 - 141				11/03/21 15:42	11/09/21 21:46	50
Toluene-d8 (Surr)	94		52 - 141				11/03/21 15:42	11/09/21 21:46	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	1300		38	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
1,2,4,5-Tetrachlorobenzene	17	U	38	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
2,2'-oxybis[1-chloropropane]	21	U	45	21	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
2,3,4,6-Tetrachlorophenol	70	U	170	70	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
2,4,5-Trichlorophenol	17	U	38	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
2,4,6-Trichlorophenol	17	U	38	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
2,4-Dichlorophenol	21	U	45	21	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
2,4-Dimethylphenol	17	U	38	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
2,4-Dinitrophenol	170	U	1000	170	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
2,4-Dinitrotoluene	35	U	170	35	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
2,6-Dinitrotoluene	17	U	38	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
2-Chloronaphthalene	14	U	35	14	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
2-Chlorophenol	17	U	38	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
2-Methylphenol	21	U	52	21	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
2-Nitroaniline	17	U	52	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
2-Nitrophenol	21	U	52	21	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
3,3'-Dichlorobenzidine	35	U	170	35	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
3-Nitroaniline	35	U	170	35	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
4,6-Dinitro-2-methylphenol	170	U	520	170	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
4-Bromophenyl-phenylether	17	U	38	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
4-Chloro-3-methylphenol	21	U	52	21	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
4-Methylphenol	17	U	52	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
4-Nitroaniline	35	U	170	35	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
4-Nitrophenol	170	U	520	170	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Acenaphthene	3.5	U	17	3.5	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Acenaphthylene	4.2	U	17	4.2	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Acetophenone	17	U	52	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Anthracene	210		17	3.5	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Atrazine	70	U	170	70	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Benzaldehyde	35	U	170	35	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Benzo[a]anthracene	28		17	3.5	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Benzo[a]pyrene	20		17	3.5	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Benzo[b]fluoranthene	3.5	U	17	3.5	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Benzo[g,h,i]perylene	38		17	3.5	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Benzo[k]fluoranthene	3.5	U	17	3.5	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Bis(2-chloroethoxy)methane	17	U	38	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Bis(2-chloroethyl)ether	17	U	38	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Bis(2-ethylhexyl) phthalate	94	J	170	70	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Client Sample ID: GI-10 (3.5-4.0)

Lab Sample ID: 410-61668-1

Date Collected: 11/01/21 09:15

Matrix: Solid

Date Received: 11/03/21 11:00

Percent Solids: 94.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butylbenzylphthalate	70	U	170	70	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Caprolactam	35	U	170	35	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Carbazole	17	U	38	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Chrysene	56		17	3.5	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Di-n-butyl phthalate	70	U	170	70	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Di-n-octyl phthalate	70	U	170	70	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Dibenz(a,h)anthracene	7.0	U	17	7.0	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Dibenzofuran	570		38	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Diethyl phthalate	70	U	170	70	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Dimethyl phthalate	70	U	170	70	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Fluoranthene	83		17	3.5	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Fluorene	1200		17	3.5	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Hexachlorobenzene	7.0	U	17	7.0	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Hexachlorobutadiene	21	U	52	21	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Hexachlorocyclopentadiene	170	U	520	170	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Hexachloroethane	35	U	170	35	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Indeno[1,2,3-cd]pyrene	4.2	U	17	4.2	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Isophorone	17	U	70	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
N-Nitrosodi-n-propylamine	35	U	70	35	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
N-Nitrosodiphenylamine	17	U	38	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Naphthalene	650		17	7.0	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Nitrobenzene	17	U	38	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Phenanthrene	1600		17	4.2	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Phenol	17	U	38	17	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Pyrene	130		17	3.5	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1
Pentachlorophenol	70	U	170	70	ug/Kg	☼	11/04/21 17:55	11/05/21 09:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	91		45 - 108	11/04/21 17:55	11/05/21 09:07	1
Nitrobenzene-d5 (Surr)	71		32 - 97	11/04/21 17:55	11/05/21 09:07	1
2-Fluorophenol (Surr)	64		26 - 96	11/04/21 17:55	11/05/21 09:07	1
2-Fluorobiphenyl (Surr)	69		39 - 100	11/04/21 17:55	11/05/21 09:07	1
2,4,6-Tribromophenol (Surr)	84		13 - 121	11/04/21 17:55	11/05/21 09:07	1
Phenol-d5 (Surr)	68		27 - 104	11/04/21 17:55	11/05/21 09:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	7900		170	52	ug/Kg	☼	11/04/21 17:55	11/05/21 21:23	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	107		45 - 108	11/04/21 17:55	11/05/21 21:23	10
Nitrobenzene-d5 (Surr)	105	S1+	32 - 97	11/04/21 17:55	11/05/21 21:23	10
2-Fluorophenol (Surr)	75		26 - 96	11/04/21 17:55	11/05/21 21:23	10
2-Fluorobiphenyl (Surr)	95		39 - 100	11/04/21 17:55	11/05/21 21:23	10
2,4,6-Tribromophenol (Surr)	91		13 - 121	11/04/21 17:55	11/05/21 21:23	10
Phenol-d5 (Surr)	80		27 - 104	11/04/21 17:55	11/05/21 21:23	10

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	3.5	U	17	3.5	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Client Sample ID: GI-10 (3.5-4.0)

Lab Sample ID: 410-61668-1

Date Collected: 11/01/21 09:15

Matrix: Solid

Date Received: 11/03/21 11:00

Percent Solids: 94.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC (1C)	3.5	U	17	3.5	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
alpha-Chlordane (1C)	3.5	U	17	3.5	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
beta-BHC (2C)	9.2	U	21	9.2	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
delta-BHC (1C)	9.4	U	21	9.4	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
Dieldrin (1C)	6.9	U	35	6.9	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
Endosulfan I (1C)	4.6	U	17	4.6	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
Endosulfan II (1C)	23	U	48	23	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
Endosulfan sulfate (1C)	6.9	U	35	6.9	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
Endrin (2C)	14	U	35	14	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
Endrin aldehyde (1C)	6.9	U	35	6.9	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
Endrin ketone (1C)	13	U	42	13	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
gamma-BHC (Lindane) (1C)	4.4	U	17	4.4	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
gamma-Chlordane (1C)	5.2	U	17	5.2	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
Heptachlor (1C)	6.5	U	17	6.5	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
Heptachlor epoxide (1C)	3.5	U	17	3.5	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
Methoxychlor (1C)	38	U	140	38	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
Toxaphene (2C)	290	U	690	290	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
p,p'-DDD (1C)	6.9	U	35	6.9	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
p,p'-DDE (1C)	6.9	U	35	6.9	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20
p,p'-DDT (1C)	16	U	35	16	ug/Kg	☼	11/04/21 17:41	11/05/21 11:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	125		54 - 143	11/04/21 17:41	11/05/21 11:19	20
DCB Decachlorobiphenyl (Surr) (2C)	111		54 - 143	11/04/21 17:41	11/05/21 11:19	20
Tetrachloro-m-xylene (Surr) (1C)	104	p	20 - 131	11/04/21 17:41	11/05/21 11:19	20
Tetrachloro-m-xylene (Surr) (2C)	218	S1+	20 - 131	11/04/21 17:41	11/05/21 11:19	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	5.5	U	18	5.5	ug/Kg	☼	11/04/21 17:13	11/05/21 08:17	1
PCB-1221 (1C)	5.5	U	18	5.5	ug/Kg	☼	11/04/21 17:13	11/05/21 08:17	1
PCB-1232 (1C)	5.5	U	18	5.5	ug/Kg	☼	11/04/21 17:13	11/05/21 08:17	1
PCB-1242 (1C)	5.5	U	18	5.5	ug/Kg	☼	11/04/21 17:13	11/05/21 08:17	1
PCB-1248 (1C)	5.5	U	18	5.5	ug/Kg	☼	11/04/21 17:13	11/05/21 08:17	1
PCB-1254 (1C)	15	J	18	6.7	ug/Kg	☼	11/04/21 17:13	11/05/21 08:17	1
PCB-1260 (1C)	6.7	U	18	6.7	ug/Kg	☼	11/04/21 17:13	11/05/21 08:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	88		45 - 143	11/04/21 17:13	11/05/21 08:17	1
DCB Decachlorobiphenyl (Surr) (2C)	105		45 - 143	11/04/21 17:13	11/05/21 08:17	1
Tetrachloro-m-xylene (1C)	82		53 - 140	11/04/21 17:13	11/05/21 08:17	1
Tetrachloro-m-xylene (2C)	80		53 - 140	11/04/21 17:13	11/05/21 08:17	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.3	U	3.7	1.3	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Aluminum	3900		15	7.9	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Arsenic	2.6		2.2	1.0	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Barium	36		0.37	0.11	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Beryllium	0.26	J	0.37	0.074	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Client Sample ID: GI-10 (3.5-4.0)

Lab Sample ID: 410-61668-1

Date Collected: 11/01/21 09:15

Matrix: Solid

Date Received: 11/03/21 11:00

Percent Solids: 94.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.13	J	0.37	0.074	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Calcium	15000		37	8.9	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Chromium	15		1.1	0.13	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Cobalt	4.7		0.37	0.11	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Copper	8.4		1.5	0.57	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Iron	10000		15	4.6	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Lead	12		1.1	0.44	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Magnesium	1400	^5-	7.4	3.0	mg/Kg	☼	11/03/21 16:05	11/09/21 11:28	1
Manganese	240		0.74	0.39	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Nickel	5.0		0.74	0.19	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Potassium	670		37	15	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Selenium	1.3	J	3.7	1.1	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Silver	0.30	U ^5-	0.74	0.30	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Sodium	88		74	34	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Thallium	0.96	U	2.2	0.96	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Zinc	19		1.5	0.74	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1
Vanadium	18		0.74	0.32	mg/Kg	☼	11/03/21 16:05	11/08/21 21:13	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025	J	0.059	0.024	mg/Kg	☼	11/03/21 21:40	11/05/21 12:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.7		1.0	1.0	%			11/03/21 18:09	1

Client Sample ID: PS-021 (5.0-5.5)

Lab Sample ID: 410-61668-2

Date Collected: 11/01/21 11:00

Matrix: Solid

Date Received: 11/03/21 11:00

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	27	U H	330	27	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
trans-1,3-Dichloropropene	33	U H	330	33	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Ethylbenzene	56	J H	330	27	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Styrene	27	U H	330	27	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
1,4-Dichlorobenzene	27	U H	330	27	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
1,2-Dibromoethane	27	U H	330	27	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
1,2-Dichloroethane	40	U H	330	40	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
4-Methyl-2-pentanone	67	U H	670	67	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Methylcyclohexane	40	U H	330	40	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Toluene	40	U H	330	40	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Chlorobenzene	33	U H	330	33	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Cyclohexane	33	U H	330	33	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
1,2,4-Trichlorobenzene	330	U H	670	330	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
1,4-Dioxane	2500	U H	17000	2500	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Dibromochloromethane	130	U H	330	130	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Tetrachloroethene	33	U H	330	33	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
cis-1,2-Dichloroethene	33	U H	330	33	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
trans-1,2-Dichloroethene	33	U H	330	33	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Client Sample ID: PS-021 (5.0-5.5)

Lab Sample ID: 410-61668-2

Date Collected: 11/01/21 11:00

Matrix: Solid

Date Received: 11/03/21 11:00

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tertiary butyl ether	33	U H	330	33	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
m&p-Xylene	180	J H	330	67	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
1,3-Dichlorobenzene	33	U H	330	33	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Carbon tetrachloride	130	U H	330	130	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
2-Hexanone	67	U H	670	67	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Acetone	400	U H	1300	400	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Chloroform	40	U H	330	40	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Benzene	33	U H	330	33	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
1,1,1-Trichloroethane	40	U H	330	40	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Bromomethane	47	U H	330	47	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Chloromethane	40	U H	330	40	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Bromochloromethane	40	U H	330	40	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Chloroethane	67	U H	330	67	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Vinyl chloride	40	U H	330	40	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Methylene Chloride	130	U H	330	130	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Carbon disulfide	40	U H	330	40	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Bromoform	330	U H	670	330	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Bromodichloromethane	27	U H	330	27	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
1,1-Dichloroethane	33	U H	330	33	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
1,1-Dichloroethene	33	U H	330	33	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Trichlorofluoromethane	47	U H	330	47	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Dichlorodifluoromethane	40	U H	330	40	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Freon 113	40	U H	670	40	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
1,2-Dichloropropane	33	U H	330	33	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
2-Butanone	130	U H	670	130	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
1,1,2-Trichloroethane	33	U H	330	33	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Trichloroethene	33	U H	330	33	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Methyl acetate	85	J H	330	67	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
1,1,2,2-Tetrachloroethane	27	U H	330	27	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
1,2,3-Trichlorobenzene	330	U H	670	330	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
o-Xylene	31	J H	330	27	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
1,2-Dichlorobenzene	33	U H	330	33	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
1,2-Dibromo-3-Chloropropane	67	U H	330	67	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50
Isopropylbenzene	27	U H	330	27	ug/Kg	☼	11/03/21 15:42	11/05/21 20:11	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		54 - 135	11/03/21 15:42	11/05/21 20:11	50
4-Bromofluorobenzene (Surr)	105		50 - 131	11/03/21 15:42	11/05/21 20:11	50
Dibromofluoromethane (Surr)	98		50 - 141	11/03/21 15:42	11/05/21 20:11	50
Toluene-d8 (Surr)	98		52 - 141	11/03/21 15:42	11/05/21 20:11	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	300		41	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
1,2,4,5-Tetrachlorobenzene	19	U	41	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
2,2'-oxybis[1-chloropropane]	22	U	49	22	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
2,3,4,6-Tetrachlorophenol	75	U	190	75	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
2,4,5-Trichlorophenol	19	U	41	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
2,4,6-Trichlorophenol	19	U	41	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
2,4-Dichlorophenol	22	U	49	22	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Client Sample ID: PS-021 (5.0-5.5)

Lab Sample ID: 410-61668-2

Date Collected: 11/01/21 11:00

Matrix: Solid

Date Received: 11/03/21 11:00

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	19	U	41	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
2,4-Dinitrophenol	190	U	1100	190	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
2,4-Dinitrotoluene	37	U	190	37	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
2,6-Dinitrotoluene	19	U	41	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
2-Chloronaphthalene	15	U	37	15	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
2-Chlorophenol	19	U	41	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
2-Methylphenol	22	U	56	22	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
2-Nitroaniline	19	U	56	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
2-Nitrophenol	22	U	56	22	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
3,3'-Dichlorobenzidine	37	U	190	37	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
3-Nitroaniline	37	U	190	37	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
4,6-Dinitro-2-methylphenol	190	U	560	190	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
4-Bromophenyl-phenylether	19	U	41	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
4-Chloro-3-methylphenol	22	U	56	22	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
4-Methylphenol	19	U	56	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
4-Nitroaniline	37	U	190	37	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
4-Nitrophenol	190	U	560	190	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Acenaphthene	2400		19	3.7	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Acenaphthylene	4.5	U	19	4.5	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Acetophenone	19	U	56	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Anthracene	2400		19	3.7	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Atrazine	75	U	190	75	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Benzaldehyde	37	U	190	37	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Benzo[a]anthracene	1700		19	3.7	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Benzo[a]pyrene	1100		19	3.7	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Benzo[b]fluoranthene	1400		19	3.7	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Benzo[g,h,i]perylene	590		19	3.7	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Benzo[k]fluoranthene	430		19	3.7	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Bis(2-chloroethoxy)methane	19	U	41	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Bis(2-chloroethyl)ether	19	U	41	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Bis(2-ethylhexyl) phthalate	75	U	190	75	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Butylbenzylphthalate	75	U	190	75	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Caprolactam	37	U	190	37	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Carbazole	19	U	41	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Chrysene	1500		19	3.7	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Di-n-butyl phthalate	75	U	190	75	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Di-n-octyl phthalate	75	U	190	75	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Dibenz(a,h)anthracene	180		19	7.5	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Dibenzofuran	2100		41	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Diethyl phthalate	75	U	190	75	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Dimethyl phthalate	75	U	190	75	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Fluoranthene	4400		19	3.7	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Fluorene	4300		19	3.7	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Hexachlorobenzene	7.5	U	19	7.5	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Hexachlorobutadiene	22	U	56	22	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Hexachlorocyclopentadiene	190	U	560	190	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Hexachloroethane	37	U	190	37	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Indeno[1,2,3-cd]pyrene	590		19	4.5	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Isophorone	19	U	75	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Client Sample ID: PS-021 (5.0-5.5)

Lab Sample ID: 410-61668-2

Date Collected: 11/01/21 11:00

Matrix: Solid

Date Received: 11/03/21 11:00

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	37	U	75	37	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
N-Nitrosodiphenylamine	19	U	41	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Naphthalene	2100		19	7.5	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Nitrobenzene	19	U	41	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Phenol	19	U	41	19	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Pyrene	3800		19	3.7	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1
Pentachlorophenol	75	U	190	75	ug/Kg	☼	11/04/21 17:55	11/05/21 09:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	93		45 - 108	11/04/21 17:55	11/05/21 09:30	1
Nitrobenzene-d5 (Surr)	84		32 - 97	11/04/21 17:55	11/05/21 09:30	1
2-Fluorophenol (Surr)	62		26 - 96	11/04/21 17:55	11/05/21 09:30	1
2-Fluorobiphenyl (Surr)	66		39 - 100	11/04/21 17:55	11/05/21 09:30	1
2,4,6-Tribromophenol (Surr)	70		13 - 121	11/04/21 17:55	11/05/21 09:30	1
Phenol-d5 (Surr)	65		27 - 104	11/04/21 17:55	11/05/21 09:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	12000		190	56	ug/Kg	☼	11/04/21 17:55	11/05/21 21:47	10
Phenanthrene	18000		190	45	ug/Kg	☼	11/04/21 17:55	11/05/21 21:47	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	107		45 - 108	11/04/21 17:55	11/05/21 21:47	10
Nitrobenzene-d5 (Surr)	125	S1+	32 - 97	11/04/21 17:55	11/05/21 21:47	10
2-Fluorophenol (Surr)	70		26 - 96	11/04/21 17:55	11/05/21 21:47	10
2-Fluorobiphenyl (Surr)	91		39 - 100	11/04/21 17:55	11/05/21 21:47	10
2,4,6-Tribromophenol (Surr)	86		13 - 121	11/04/21 17:55	11/05/21 21:47	10
Phenol-d5 (Surr)	77		27 - 104	11/04/21 17:55	11/05/21 21:47	10

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	19	U	93	19	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
alpha-BHC (2C)	19	U	93	19	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
alpha-Chlordane (1C)	19	U	93	19	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
beta-BHC (1C)	49	U	110	49	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
delta-BHC (1C)	51	U	110	51	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
Dieldrin (1C)	37	U	190	37	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
Endosulfan I (1C)	25	U	93	25	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
Endosulfan II (1C)	120	U	260	120	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
Endosulfan sulfate (1C)	37	U	190	37	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
Endrin (2C)	76	U	190	76	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
Endrin aldehyde (1C)	37	U	190	37	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
Endrin ketone (1C)	67	U	220	67	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
gamma-BHC (Lindane) (1C)	24	U	93	24	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
gamma-Chlordane (1C)	28	U	93	28	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
Heptachlor (1C)	35	U	93	35	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
Heptachlor epoxide (1C)	19	U	93	19	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
Methoxychlor (1C)	200	U	750	200	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
Toxaphene (2C)	1600	U	3700	1600	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
p,p'-DDD (1C)	37	U	190	37	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Client Sample ID: PS-021 (5.0-5.5)

Lab Sample ID: 410-61668-2

Date Collected: 11/01/21 11:00

Matrix: Solid

Date Received: 11/03/21 11:00

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p,p'-DDE (1C)	37	U	190	37	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
p,p'-DDT (1C)	89	U	190	89	ug/Kg	☼	11/04/21 17:41	11/05/21 11:39	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	110		54 - 143				11/04/21 17:41	11/05/21 11:39	100
DCB Decachlorobiphenyl (Surr) (2C)	123		54 - 143				11/04/21 17:41	11/05/21 11:39	100
Tetrachloro-m-xylene (Surr) (1C)	128	p	20 - 131				11/04/21 17:41	11/05/21 11:39	100
Tetrachloro-m-xylene (Surr) (2C)	320	S1+	20 - 131				11/04/21 17:41	11/05/21 11:39	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	30	U	96	30	ug/Kg	☼	11/04/21 17:13	11/05/21 08:27	5
PCB-1221 (1C)	30	U	96	30	ug/Kg	☼	11/04/21 17:13	11/05/21 08:27	5
PCB-1232 (1C)	30	U	96	30	ug/Kg	☼	11/04/21 17:13	11/05/21 08:27	5
PCB-1242 (1C)	30	U	96	30	ug/Kg	☼	11/04/21 17:13	11/05/21 08:27	5
PCB-1248 (1C)	30	U	96	30	ug/Kg	☼	11/04/21 17:13	11/05/21 08:27	5
PCB-1254 (1C)	36	U	96	36	ug/Kg	☼	11/04/21 17:13	11/05/21 08:27	5
PCB-1260 (1C)	760		96	36	ug/Kg	☼	11/04/21 17:13	11/05/21 08:27	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	91		45 - 143				11/04/21 17:13	11/05/21 08:27	5
DCB Decachlorobiphenyl (Surr) (2C)	107		45 - 143				11/04/21 17:13	11/05/21 08:27	5
Tetrachloro-m-xylene (1C)	77		53 - 140				11/04/21 17:13	11/05/21 08:27	5
Tetrachloro-m-xylene (2C)	77		53 - 140				11/04/21 17:13	11/05/21 08:27	5

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.6	U	4.8	1.6	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Aluminum	3300		19	10	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Arsenic	3.1		2.9	1.3	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Barium	36		0.48	0.14	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Beryllium	0.26	J	0.48	0.096	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Cadmium	0.096	U	0.48	0.096	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Calcium	18000		48	11	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Chromium	9.8		1.4	0.17	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Cobalt	5.6		0.48	0.14	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Copper	9.9		1.9	0.74	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Iron	9400		19	5.9	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Lead	19		1.4	0.57	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Magnesium	1100	^5-	9.6	3.8	mg/Kg	☼	11/03/21 16:05	11/09/21 11:18	1
Manganese	210		0.96	0.50	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Nickel	6.0		0.96	0.25	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Potassium	500		48	20	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Selenium	1.4	U	4.8	1.4	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Silver	0.38	U ^5-	0.96	0.38	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Sodium	44	U	96	44	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Thallium	1.2	U	2.9	1.2	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Zinc	21		1.9	0.96	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1
Vanadium	14		0.96	0.41	mg/Kg	☼	11/03/21 16:05	11/08/21 21:09	1

Client Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Client Sample ID: PS-021 (5.0-5.5)

Lab Sample ID: 410-61668-2

Date Collected: 11/01/21 11:00

Matrix: Solid

Date Received: 11/03/21 11:00

Percent Solids: 88.6

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.046	J	0.066	0.027	mg/Kg	☼	11/03/21 21:40	11/05/21 12:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.4		1.0	1.0	%			11/03/21 18:09	1

DRAFT

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (54-135)	BFB (50-131)	DBFM (50-141)	TOL (52-141)
410-61668-1	GI-10 (3.5-4.0)	100	96	97	94
410-61668-2	PS-021 (5.0-5.5)	104	105	98	98
LCS 410-191422/4	Lab Control Sample	105	98	103	100
LCS 410-192672/5	Lab Control Sample	108	98	104	100
LCSD 410-191422/5	Lab Control Sample Dup	107	100	105	101
LCSD 410-192672/6	Lab Control Sample Dup	105	97	103	99
MB 410-191422/7	Method Blank	103	95	97	96
MB 410-192672/8	Method Blank	101	89	94	91

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (45-108)	NBZ (32-97)	2FP (26-96)	FBP (39-100)	TBP (13-121)	PHL (27-104)
410-61668-1	GI-10 (3.5-4.0)	91	71	64	69	84	68
410-61668-1 - DL	GI-10 (3.5-4.0)	107	105 S1+	75	95	91	80
410-61668-2	PS-021 (5.0-5.5)	93	84	62	66	70	65
410-61668-2 - DL	PS-021 (5.0-5.5)	107	125 S1+	70	91	86	77
LCS 410-191025/2-A	Lab Control Sample	109 S1+	82	85	88	106	84
MB 410-191025/1-A	Method Blank	114 S1+	85	85	89	102	83

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (54-143)	DCB2 (54-143)	TCX1 (20-131)	TCX2 (20-131)
410-61668-1	GI-10 (3.5-4.0)	125	111	104 p	218 S1+
410-61668-2	PS-021 (5.0-5.5)	110	123	128 p	320 S1+
LCS 410-191014/2-A	Lab Control Sample	105	95	76	67
MB 410-191014/1-A	Method Blank	102	94	82	72

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1	DCB2	TCX1	TCX2
		(45-143)	(45-143)	(53-140)	(53-140)
410-61668-1	GI-10 (3.5-4.0)	88	105	82	80
410-61668-2	PS-021 (5.0-5.5)	91	107	77	77
LCS 410-190993/2-A	Lab Control Sample		97		91
MB 410-190993/1-A	Method Blank		96		90

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

DRAFT

- 1
- 2
- 3
- 4
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- 13
- 14
- 15

QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Lab Sample ID: MB 410-191422/7
Matrix: Solid
Analysis Batch: 191422

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	20	U	250	20	ug/Kg			11/05/21 19:12	50
trans-1,3-Dichloropropene	25	U	250	25	ug/Kg			11/05/21 19:12	50
Ethylbenzene	20	U	250	20	ug/Kg			11/05/21 19:12	50
Styrene	20	U	250	20	ug/Kg			11/05/21 19:12	50
1,4-Dichlorobenzene	20	U	250	20	ug/Kg			11/05/21 19:12	50
1,2-Dibromoethane	20	U	250	20	ug/Kg			11/05/21 19:12	50
1,2-Dichloroethane	30	U	250	30	ug/Kg			11/05/21 19:12	50
4-Methyl-2-pentanone	50	U	500	50	ug/Kg			11/05/21 19:12	50
Methylcyclohexane	30	U	250	30	ug/Kg			11/05/21 19:12	50
Toluene	30	U	250	30	ug/Kg			11/05/21 19:12	50
Chlorobenzene	25	U	250	25	ug/Kg			11/05/21 19:12	50
Cyclohexane	25	U	250	25	ug/Kg			11/05/21 19:12	50
1,2,4-Trichlorobenzene	250	U	500	250	ug/Kg			11/05/21 19:12	50
1,4-Dioxane	1900	U	13000	1900	ug/Kg			11/05/21 19:12	50
Dibromochloromethane	100	U	250	100	ug/Kg			11/05/21 19:12	50
Tetrachloroethene	25	U	250	25	ug/Kg			11/05/21 19:12	50
cis-1,2-Dichloroethene	25	U	250	25	ug/Kg			11/05/21 19:12	50
trans-1,2-Dichloroethene	25	U	250	25	ug/Kg			11/05/21 19:12	50
Methyl tertiary butyl ether	25	U	250	25	ug/Kg			11/05/21 19:12	50
m&p-Xylene	50	U	250	50	ug/Kg			11/05/21 19:12	50
1,3-Dichlorobenzene	25	U	250	25	ug/Kg			11/05/21 19:12	50
Carbon tetrachloride	100	U	250	100	ug/Kg			11/05/21 19:12	50
2-Hexanone	50	U	500	50	ug/Kg			11/05/21 19:12	50
Acetone	300	U	1000	300	ug/Kg			11/05/21 19:12	50
Chloroform	30	U	250	30	ug/Kg			11/05/21 19:12	50
Benzene	25	U	250	25	ug/Kg			11/05/21 19:12	50
1,1,1-Trichloroethane	30	U	250	30	ug/Kg			11/05/21 19:12	50
Bromomethane	35	U	250	35	ug/Kg			11/05/21 19:12	50
Chloromethane	30	U	250	30	ug/Kg			11/05/21 19:12	50
Bromochloromethane	30	U	250	30	ug/Kg			11/05/21 19:12	50
Chloroethane	50	U	250	50	ug/Kg			11/05/21 19:12	50
Vinyl chloride	30	U	250	30	ug/Kg			11/05/21 19:12	50
Methylene Chloride	100	U	250	100	ug/Kg			11/05/21 19:12	50
Carbon disulfide	30	U	250	30	ug/Kg			11/05/21 19:12	50
Bromoform	250	U	500	250	ug/Kg			11/05/21 19:12	50
Bromodichloromethane	20	U	250	20	ug/Kg			11/05/21 19:12	50
1,1-Dichloroethane	25	U	250	25	ug/Kg			11/05/21 19:12	50
1,1-Dichloroethene	25	U	250	25	ug/Kg			11/05/21 19:12	50
Trichlorofluoromethane	35	U	250	35	ug/Kg			11/05/21 19:12	50
Dichlorodifluoromethane	30	U	250	30	ug/Kg			11/05/21 19:12	50
Freon 113	30	U	500	30	ug/Kg			11/05/21 19:12	50
1,2-Dichloropropane	25	U	250	25	ug/Kg			11/05/21 19:12	50
2-Butanone	100	U	500	100	ug/Kg			11/05/21 19:12	50
1,1,2-Trichloroethane	25	U	250	25	ug/Kg			11/05/21 19:12	50
Trichloroethene	25	U	250	25	ug/Kg			11/05/21 19:12	50
Methyl acetate	50	U	250	50	ug/Kg			11/05/21 19:12	50
1,1,2,2-Tetrachloroethane	20	U	250	20	ug/Kg			11/05/21 19:12	50
1,2,3-Trichlorobenzene	250	U	500	250	ug/Kg			11/05/21 19:12	50

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Lab Sample ID: MB 410-191422/7
Matrix: Solid
Analysis Batch: 191422

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	20	U	250	20	ug/Kg			11/05/21 19:12	50
1,2-Dichlorobenzene	25	U	250	25	ug/Kg			11/05/21 19:12	50
1,2-Dibromo-3-Chloropropane	50	U	250	50	ug/Kg			11/05/21 19:12	50
Isopropylbenzene	20	U	250	20	ug/Kg			11/05/21 19:12	50

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	103		54 - 135		11/05/21 19:12	50
4-Bromofluorobenzene (Surr)	95		50 - 131		11/05/21 19:12	50
Dibromofluoromethane (Surr)	97		50 - 141		11/05/21 19:12	50
Toluene-d8 (Surr)	96		52 - 141		11/05/21 19:12	50

Lab Sample ID: LCS 410-191422/4
Matrix: Solid
Analysis Batch: 191422

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,3-Dichloropropene	1000	1020		ug/Kg		102	66 - 120
trans-1,3-Dichloropropene	1000	1050		ug/Kg		105	68 - 122
Ethylbenzene	1000	973		ug/Kg		97	78 - 120
Styrene	1000	955		ug/Kg		95	76 - 120
1,4-Dichlorobenzene	1000	960		ug/Kg		96	80 - 120
1,2-Dibromoethane	1000	969		ug/Kg		97	76 - 120
1,2-Dichloroethane	1000	1040		ug/Kg		104	71 - 128
4-Methyl-2-pentanone	12500	12200		ug/Kg		98	67 - 128
Methylcyclohexane	1000	1010		ug/Kg		101	61 - 124
Toluene	1000	972		ug/Kg		97	80 - 120
Chlorobenzene	1000	991		ug/Kg		99	80 - 120
Cyclohexane	1000	996		ug/Kg		100	58 - 126
1,2,4-Trichlorobenzene	1000	992		ug/Kg		99	56 - 130
1,4-Dioxane	25000	26600		ug/Kg		106	62 - 131
Dibromochloromethane	1000	1040		ug/Kg		104	69 - 125
Tetrachloroethene	1000	1040		ug/Kg		104	73 - 120
cis-1,2-Dichloroethene	1000	1060		ug/Kg		106	80 - 125
trans-1,2-Dichloroethene	1000	983		ug/Kg		98	80 - 126
Methyl tertiary butyl ether	1000	967		ug/Kg		97	72 - 120
m&p-Xylene	2000	2000		ug/Kg		100	80 - 120
1,3-Dichlorobenzene	1000	944		ug/Kg		94	75 - 120
Carbon tetrachloride	1000	1090		ug/Kg		109	64 - 134
2-Hexanone	12500	12000		ug/Kg		96	54 - 140
Acetone	12500	10000		ug/Kg		80	41 - 150
Chloroform	1000	1020		ug/Kg		102	80 - 120
Benzene	1000	999		ug/Kg		100	80 - 120
1,1,1-Trichloroethane	1000	1040		ug/Kg		104	69 - 123
Bromomethane	1000	1130		ug/Kg		113	45 - 140
Chloromethane	1000	1010		ug/Kg		101	56 - 120
Bromochloromethane	1000	1080		ug/Kg		108	72 - 124
Chloroethane	1000	1100		ug/Kg		110	43 - 135
Vinyl chloride	1000	1030		ug/Kg		103	52 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Lab Sample ID: LCS 410-191422/4
Matrix: Solid
Analysis Batch: 191422

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	1000	1010		ug/Kg		101	76 - 122
Carbon disulfide	1000	1020		ug/Kg		102	64 - 133
Bromoform	1000	986		ug/Kg		99	51 - 127
Bromodichloromethane	1000	1050		ug/Kg		105	70 - 120
1,1-Dichloroethane	1000	998		ug/Kg		100	79 - 120
1,1-Dichloroethene	1000	1030		ug/Kg		103	73 - 129
Trichlorofluoromethane	1000	1050		ug/Kg		105	55 - 134
Dichlorodifluoromethane	1000	1040		ug/Kg		104	21 - 127
Freon 113	1000	1080		ug/Kg		108	64 - 135
1,2-Dichloropropane	1000	1010		ug/Kg		101	80 - 120
2-Butanone	12500	9860		ug/Kg		79	57 - 128
1,1,2-Trichloroethane	1000	996		ug/Kg		100	80 - 120
Trichloroethene	1000	1010		ug/Kg		101	80 - 120
Methyl acetate	1000	1060		ug/Kg		106	67 - 128
1,1,2,2-Tetrachloroethane	1000	947		ug/Kg		95	69 - 125
1,2,3-Trichlorobenzene	1000	1010		ug/Kg		101	57 - 131
o-Xylene	1000	983		ug/Kg		98	75 - 120
1,2-Dichlorobenzene	1000	955		ug/Kg		96	76 - 120
1,2-Dibromo-3-Chloropropane	1000	876		ug/Kg		88	48 - 134
Isopropylbenzene	1000	1000		ug/Kg		100	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		54 - 135
4-Bromofluorobenzene (Surr)	98		50 - 131
Dibromofluoromethane (Surr)	103		50 - 141
Toluene-d8 (Surr)	100		52 - 141

Lab Sample ID: LCSD 410-191422/5
Matrix: Solid
Analysis Batch: 191422

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	1000	1040		ug/Kg		104	66 - 120	2	30
trans-1,3-Dichloropropene	1000	1070		ug/Kg		107	68 - 122	2	30
Ethylbenzene	1000	990		ug/Kg		99	78 - 120	2	30
Styrene	1000	948		ug/Kg		95	76 - 120	1	30
1,4-Dichlorobenzene	1000	980		ug/Kg		98	80 - 120	2	30
1,2-Dibromoethane	1000	990		ug/Kg		99	76 - 120	2	30
1,2-Dichloroethane	1000	1060		ug/Kg		106	71 - 128	1	30
4-Methyl-2-pentanone	12500	12800		ug/Kg		102	67 - 128	4	30
Methylcyclohexane	1000	1030		ug/Kg		103	61 - 124	3	30
Toluene	1000	987		ug/Kg		99	80 - 120	2	30
Chlorobenzene	1000	995		ug/Kg		100	80 - 120	0	30
Cyclohexane	1000	1010		ug/Kg		101	58 - 126	1	30
1,2,4-Trichlorobenzene	1000	1020		ug/Kg		102	56 - 130	2	30
1,4-Dioxane	25000	25900		ug/Kg		104	62 - 131	2	30
Dibromochloromethane	1000	1050		ug/Kg		105	69 - 125	0	30
Tetrachloroethene	1000	1060		ug/Kg		106	73 - 120	2	30

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Lab Sample ID: LCSD 410-191422/5
Matrix: Solid
Analysis Batch: 191422

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	1000	1060		ug/Kg		106	80 - 125	0	30
trans-1,2-Dichloroethene	1000	1010		ug/Kg		101	80 - 126	3	30
Methyl tertiary butyl ether	1000	986		ug/Kg		99	72 - 120	2	30
m&p-Xylene	2000	2030		ug/Kg		102	80 - 120	1	30
1,3-Dichlorobenzene	1000	968		ug/Kg		97	75 - 120	3	30
Carbon tetrachloride	1000	1110		ug/Kg		111	64 - 134	2	30
2-Hexanone	12500	12600		ug/Kg		100	54 - 140	4	30
Acetone	12500	10100		ug/Kg		81	41 - 150	1	30
Chloroform	1000	1030		ug/Kg		103	80 - 120	1	30
Benzene	1000	1020		ug/Kg		102	80 - 120	2	30
1,1,1-Trichloroethane	1000	1050		ug/Kg		105	69 - 123	2	30
Bromomethane	1000	1160		ug/Kg		116	45 - 140	2	30
Chloromethane	1000	1030		ug/Kg		103	56 - 120	2	30
Bromochloromethane	1000	1080		ug/Kg		108	72 - 124	1	30
Chloroethane	1000	1130		ug/Kg		113	43 - 135	3	30
Vinyl chloride	1000	1020		ug/Kg		102	52 - 120	1	30
Methylene Chloride	1000	1020		ug/Kg		102	76 - 122	1	30
Carbon disulfide	1000	1040		ug/Kg		104	64 - 133	1	30
Bromoform	1000	989		ug/Kg		99	51 - 127	0	30
Bromodichloromethane	1000	1060		ug/Kg		106	70 - 120	1	30
1,1-Dichloroethane	1000	1000		ug/Kg		100	79 - 120	1	30
1,1-Dichloroethene	1000	1030		ug/Kg		103	73 - 129	0	30
Trichlorofluoromethane	1000	1060		ug/Kg		106	55 - 134	1	30
Dichlorodifluoromethane	1000	1040		ug/Kg		104	21 - 127	0	30
Freon 113	1000	1070		ug/Kg		107	64 - 135	0	30
1,2-Dichloropropane	1000	1010		ug/Kg		101	80 - 120	1	30
2-Butanone	12500	10300		ug/Kg		83	57 - 128	5	30
1,1,2-Trichloroethane	1000	989		ug/Kg		99	80 - 120	1	30
Trichloroethene	1000	1030		ug/Kg		103	80 - 120	2	30
Methyl acetate	1000	1100		ug/Kg		110	67 - 128	3	30
1,1,2,2-Tetrachloroethane	1000	979		ug/Kg		98	69 - 125	3	30
1,2,3-Trichlorobenzene	1000	1050		ug/Kg		105	57 - 131	4	30
o-Xylene	1000	985		ug/Kg		98	75 - 120	0	30
1,2-Dichlorobenzene	1000	981		ug/Kg		98	76 - 120	3	30
1,2-Dibromo-3-Chloropropane	1000	929		ug/Kg		93	48 - 134	6	30
Isopropylbenzene	1000	1020		ug/Kg		102	77 - 120	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	107		54 - 135
4-Bromofluorobenzene (Surr)	100		50 - 131
Dibromofluoromethane (Surr)	105		50 - 141
Toluene-d8 (Surr)	101		52 - 141

QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Lab Sample ID: MB 410-192672/8
Matrix: Solid
Analysis Batch: 192672

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	20	U	250	20	ug/Kg			11/09/21 20:06	50
trans-1,3-Dichloropropene	25	U	250	25	ug/Kg			11/09/21 20:06	50
Ethylbenzene	20	U	250	20	ug/Kg			11/09/21 20:06	50
Styrene	20	U	250	20	ug/Kg			11/09/21 20:06	50
1,4-Dichlorobenzene	20	U	250	20	ug/Kg			11/09/21 20:06	50
1,2-Dibromoethane	20	U	250	20	ug/Kg			11/09/21 20:06	50
1,2-Dichloroethane	30	U	250	30	ug/Kg			11/09/21 20:06	50
4-Methyl-2-pentanone	50	U	500	50	ug/Kg			11/09/21 20:06	50
Methylcyclohexane	30	U	250	30	ug/Kg			11/09/21 20:06	50
Toluene	30	U	250	30	ug/Kg			11/09/21 20:06	50
Chlorobenzene	25	U	250	25	ug/Kg			11/09/21 20:06	50
Cyclohexane	25	U	250	25	ug/Kg			11/09/21 20:06	50
1,2,4-Trichlorobenzene	250	U	500	250	ug/Kg			11/09/21 20:06	50
1,4-Dioxane	1900	U	13000	1900	ug/Kg			11/09/21 20:06	50
Dibromochloromethane	100	U	250	100	ug/Kg			11/09/21 20:06	50
Tetrachloroethene	25	U	250	25	ug/Kg			11/09/21 20:06	50
cis-1,2-Dichloroethene	25	U	250	25	ug/Kg			11/09/21 20:06	50
trans-1,2-Dichloroethene	25	U	250	25	ug/Kg			11/09/21 20:06	50
Methyl tertiary butyl ether	25	U	250	25	ug/Kg			11/09/21 20:06	50
m&p-Xylene	50	U	250	50	ug/Kg			11/09/21 20:06	50
1,3-Dichlorobenzene	25	U	250	25	ug/Kg			11/09/21 20:06	50
Carbon tetrachloride	100	U	250	100	ug/Kg			11/09/21 20:06	50
2-Hexanone	50	U	500	50	ug/Kg			11/09/21 20:06	50
Acetone	300	U	1000	300	ug/Kg			11/09/21 20:06	50
Chloroform	30	U	250	30	ug/Kg			11/09/21 20:06	50
Benzene	25	U	250	25	ug/Kg			11/09/21 20:06	50
1,1,1-Trichloroethane	30	U	250	30	ug/Kg			11/09/21 20:06	50
Bromomethane	35	U	250	35	ug/Kg			11/09/21 20:06	50
Chloromethane	30	U	250	30	ug/Kg			11/09/21 20:06	50
Bromochloromethane	30	U	250	30	ug/Kg			11/09/21 20:06	50
Chloroethane	50	U	250	50	ug/Kg			11/09/21 20:06	50
Vinyl chloride	30	U	250	30	ug/Kg			11/09/21 20:06	50
Methylene Chloride	100	U	250	100	ug/Kg			11/09/21 20:06	50
Carbon disulfide	30	U	250	30	ug/Kg			11/09/21 20:06	50
Bromoform	250	U	500	250	ug/Kg			11/09/21 20:06	50
Bromodichloromethane	20	U	250	20	ug/Kg			11/09/21 20:06	50
1,1-Dichloroethane	25	U	250	25	ug/Kg			11/09/21 20:06	50
1,1-Dichloroethene	25	U	250	25	ug/Kg			11/09/21 20:06	50
Trichlorofluoromethane	35	U	250	35	ug/Kg			11/09/21 20:06	50
Dichlorodifluoromethane	30	U	250	30	ug/Kg			11/09/21 20:06	50
Freon 113	30	U	500	30	ug/Kg			11/09/21 20:06	50
1,2-Dichloropropane	25	U	250	25	ug/Kg			11/09/21 20:06	50
2-Butanone	100	U	500	100	ug/Kg			11/09/21 20:06	50
1,1,2-Trichloroethane	25	U	250	25	ug/Kg			11/09/21 20:06	50
Trichloroethene	25	U	250	25	ug/Kg			11/09/21 20:06	50
Methyl acetate	50	U	250	50	ug/Kg			11/09/21 20:06	50
1,1,2,2-Tetrachloroethane	20	U	250	20	ug/Kg			11/09/21 20:06	50
1,2,3-Trichlorobenzene	250	U	500	250	ug/Kg			11/09/21 20:06	50

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Lab Sample ID: MB 410-192672/8
Matrix: Solid
Analysis Batch: 192672

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	20	U	250	20	ug/Kg			11/09/21 20:06	50
1,2-Dichlorobenzene	25	U	250	25	ug/Kg			11/09/21 20:06	50
1,2-Dibromo-3-Chloropropane	50	U	250	50	ug/Kg			11/09/21 20:06	50
Isopropylbenzene	20	U	250	20	ug/Kg			11/09/21 20:06	50

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	101		54 - 135		11/09/21 20:06	50
4-Bromofluorobenzene (Surr)	89		50 - 131		11/09/21 20:06	50
Dibromofluoromethane (Surr)	94		50 - 141		11/09/21 20:06	50
Toluene-d8 (Surr)	91		52 - 141		11/09/21 20:06	50

Lab Sample ID: LCS 410-192672/5
Matrix: Solid
Analysis Batch: 192672

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	1000	1080		ug/Kg		108	68 - 122
Ethylbenzene	1000	1000		ug/Kg		100	78 - 120
Styrene	1000	1010		ug/Kg		101	76 - 120
1,4-Dichlorobenzene	1000	1030		ug/Kg		103	80 - 120
1,2-Dibromoethane	1000	1020		ug/Kg		102	76 - 120
1,2-Dichloroethane	1000	996		ug/Kg		100	71 - 128
4-Methyl-2-pentanone	12500	11500		ug/Kg		92	67 - 128
Methylcyclohexane	1000	1010		ug/Kg		101	61 - 124
Toluene	1000	1020		ug/Kg		102	80 - 120
Chlorobenzene	1000	1030		ug/Kg		103	80 - 120
Cyclohexane	1000	961		ug/Kg		96	58 - 126
1,2,4-Trichlorobenzene	1000	1030		ug/Kg		103	56 - 130
1,4-Dioxane	25000	24900		ug/Kg		99	62 - 131
Dibromochloromethane	1000	1160		ug/Kg		116	69 - 125
Tetrachloroethene	1000	1100		ug/Kg		110	73 - 120
cis-1,2-Dichloroethene	1000	1100		ug/Kg		110	80 - 125
trans-1,2-Dichloroethene	1000	1070		ug/Kg		107	80 - 126
Methyl tertiary butyl ether	1000	995		ug/Kg		100	72 - 120
m&p-Xylene	2000	2080		ug/Kg		104	80 - 120
1,3-Dichlorobenzene	1000	1030		ug/Kg		103	75 - 120
Carbon tetrachloride	1000	1170		ug/Kg		117	64 - 134
2-Hexanone	12500	10900		ug/Kg		87	54 - 140
Acetone	12500	13600		ug/Kg		109	41 - 150
Chloroform	1000	1030		ug/Kg		103	80 - 120
Benzene	1000	1030		ug/Kg		103	80 - 120
1,1,1-Trichloroethane	1000	1110		ug/Kg		111	69 - 123
Bromomethane	1000	1410	*+	ug/Kg		141	45 - 140
Chloromethane	1000	1200		ug/Kg		120	56 - 120
Bromochloromethane	1000	1130		ug/Kg		113	72 - 124
Chloroethane	1000	1440	*+	ug/Kg		144	43 - 135
Vinyl chloride	1000	1250	*+	ug/Kg		125	52 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Lab Sample ID: LCS 410-192672/5
Matrix: Solid
Analysis Batch: 192672

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	1000	1080		ug/Kg		108	76 - 122
Carbon disulfide	1000	1190		ug/Kg		119	64 - 133
Bromoform	1000	1140		ug/Kg		114	51 - 127
Bromodichloromethane	1000	1100		ug/Kg		110	70 - 120
1,1-Dichloroethane	1000	1000		ug/Kg		100	79 - 120
1,1-Dichloroethene	1000	1140		ug/Kg		114	73 - 129
Trichlorofluoromethane	1000	1070		ug/Kg		107	55 - 134
Dichlorodifluoromethane	1000	1080		ug/Kg		108	21 - 127
Freon 113	1000	1120		ug/Kg		112	64 - 135
1,2-Dichloropropane	1000	990		ug/Kg		99	80 - 120
2-Butanone	12500	11600		ug/Kg		93	57 - 128
1,1,2-Trichloroethane	1000	1040		ug/Kg		104	80 - 120
Trichloroethene	1000	1050		ug/Kg		105	80 - 120
Methyl acetate	1000	979		ug/Kg		98	67 - 128
1,1,2,2-Tetrachloroethane	1000	1000		ug/Kg		100	69 - 125
1,2,3-Trichlorobenzene	1000	980		ug/Kg		98	57 - 131
o-Xylene	1000	1020		ug/Kg		102	75 - 120
1,2-Dichlorobenzene	1000	1020		ug/Kg		102	76 - 120
1,2-Dibromo-3-Chloropropane	1000	806		ug/Kg		81	48 - 134
Isopropylbenzene	1000	1050		ug/Kg		105	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	108		54 - 135
4-Bromofluorobenzene (Surr)	98		50 - 131
Dibromofluoromethane (Surr)	104		50 - 141
Toluene-d8 (Surr)	100		52 - 141

Lab Sample ID: LCSD 410-192672/6
Matrix: Solid
Analysis Batch: 192672

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	1000	1050		ug/Kg		105	66 - 120	1	30
trans-1,3-Dichloropropene	1000	1060		ug/Kg		106	68 - 122	2	30
Ethylbenzene	1000	1000		ug/Kg		100	78 - 120	0	30
Styrene	1000	1010		ug/Kg		101	76 - 120	1	30
1,4-Dichlorobenzene	1000	1020		ug/Kg		102	80 - 120	1	30
1,2-Dibromoethane	1000	1010		ug/Kg		101	76 - 120	1	30
1,2-Dichloroethane	1000	958		ug/Kg		96	71 - 128	4	30
4-Methyl-2-pentanone	12500	11100		ug/Kg		89	67 - 128	3	30
Methylcyclohexane	1000	1020		ug/Kg		102	61 - 124	1	30
Toluene	1000	1020		ug/Kg		102	80 - 120	0	30
Chlorobenzene	1000	1020		ug/Kg		102	80 - 120	1	30
Cyclohexane	1000	957		ug/Kg		96	58 - 126	0	30
1,2,4-Trichlorobenzene	1000	1030		ug/Kg		103	56 - 130	0	30
1,4-Dioxane	25000	26400		ug/Kg		106	62 - 131	6	30
Dibromochloromethane	1000	1130		ug/Kg		113	69 - 125	3	30
Tetrachloroethene	1000	1100		ug/Kg		110	73 - 120	0	30

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Lab Sample ID: LCSD 410-192672/6
Matrix: Solid
Analysis Batch: 192672

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	1000	1100		ug/Kg		110	80 - 125	0	30
trans-1,2-Dichloroethene	1000	1070		ug/Kg		107	80 - 126	0	30
Methyl tertiary butyl ether	1000	956		ug/Kg		96	72 - 120	4	30
m&p-Xylene	2000	2050		ug/Kg		102	80 - 120	2	30
1,3-Dichlorobenzene	1000	1020		ug/Kg		102	75 - 120	1	30
Carbon tetrachloride	1000	1170		ug/Kg		117	64 - 134	0	30
2-Hexanone	12500	10800		ug/Kg		87	54 - 140	0	30
Acetone	12500	12600		ug/Kg		101	41 - 150	8	30
Chloroform	1000	1030		ug/Kg		103	80 - 120	0	30
Benzene	1000	1030		ug/Kg		103	80 - 120	0	30
1,1,1-Trichloroethane	1000	1100		ug/Kg		110	69 - 123	1	30
Bromomethane	1000	1140		ug/Kg		114	45 - 140	21	30
Chloromethane	1000	1210	*+	ug/Kg		121	56 - 120	0	30
Bromochloromethane	1000	1100		ug/Kg		110	72 - 124	3	30
Chloroethane	1000	1210		ug/Kg		121	43 - 135	17	30
Vinyl chloride	1000	1240	*+	ug/Kg		124	52 - 120	1	30
Methylene Chloride	1000	1060		ug/Kg		106	76 - 122	2	30
Carbon disulfide	1000	1190		ug/Kg		119	64 - 133	0	30
Bromoform	1000	1110		ug/Kg		111	51 - 127	3	30
Bromodichloromethane	1000	1080		ug/Kg		108	70 - 120	2	30
1,1-Dichloroethane	1000	993		ug/Kg		99	79 - 120	1	30
1,1-Dichloroethene	1000	1140		ug/Kg		114	73 - 129	1	30
Trichlorofluoromethane	1000	1070		ug/Kg		107	55 - 134	0	30
Dichlorodifluoromethane	1000	1050		ug/Kg		105	21 - 127	3	30
Freon 113	1000	1110		ug/Kg		111	64 - 135	1	30
1,2-Dichloropropane	1000	984		ug/Kg		98	80 - 120	1	30
2-Butanone	12500	11100		ug/Kg		89	57 - 128	4	30
1,1,2-Trichloroethane	1000	1020		ug/Kg		102	80 - 120	3	30
Trichloroethene	1000	1050		ug/Kg		105	80 - 120	0	30
Methyl acetate	1000	923		ug/Kg		92	67 - 128	6	30
1,1,2,2-Tetrachloroethane	1000	961		ug/Kg		96	69 - 125	4	30
1,2,3-Trichlorobenzene	1000	1000		ug/Kg		100	57 - 131	2	30
o-Xylene	1000	1010		ug/Kg		101	75 - 120	1	30
1,2-Dichlorobenzene	1000	1000		ug/Kg		100	76 - 120	2	30
1,2-Dibromo-3-Chloropropane	1000	782		ug/Kg		78	48 - 134	3	30
Isopropylbenzene	1000	1040		ug/Kg		104	77 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	105		54 - 135
4-Bromofluorobenzene (Surr)	97		50 - 131
Dibromofluoromethane (Surr)	103		50 - 141
Toluene-d8 (Surr)	99		52 - 141

QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Lab Sample ID: MB 410-191025/1-A
Matrix: Solid
Analysis Batch: 191109

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 191025

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1'-Biphenyl	17	U	37	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
1,2,4,5-Tetrachlorobenzene	17	U	37	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
2,2'-oxybis[1-chloropropane]	20	U	43	20	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
2,3,4,6-Tetrachlorophenol	67	U	170	67	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
2,4,5-Trichlorophenol	17	U	37	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
2,4,6-Trichlorophenol	17	U	37	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
2,4-Dichlorophenol	20	U	43	20	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
2,4-Dimethylphenol	17	U	37	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
2,4-Dinitrophenol	170	U	1000	170	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
2,4-Dinitrotoluene	33	U	170	33	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
2,6-Dinitrotoluene	17	U	37	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
2-Chloronaphthalene	13	U	33	13	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
2-Chlorophenol	17	U	37	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
2-Methylnaphthalene	5.0	U	17	5.0	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
2-Methylphenol	20	U	50	20	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
2-Nitroaniline	17	U	50	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
2-Nitrophenol	20	U	50	20	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
3,3'-Dichlorobenzidine	33	U	170	33	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
3-Nitroaniline	33	U	170	33	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
4,6-Dinitro-2-methylphenol	170	U	500	170	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
4-Bromophenyl-phenylether	17	U	37	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
4-Chloro-3-methylphenol	20	U	50	20	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
4-Methylphenol	17	U	50	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
4-Nitroaniline	33	U	170	33	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
4-Nitrophenol	170	U	500	170	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Acenaphthene	3.3	U	17	3.3	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Acenaphthylene	4.0	U	17	4.0	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Acetophenone	17	U	50	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Anthracene	3.3	U	17	3.3	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Atrazine	67	U	170	67	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Benzaldehyde	33	U	170	33	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Benzo[a]anthracene	3.3	U	17	3.3	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Benzo[a]pyrene	3.3	U	17	3.3	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Benzo[b]fluoranthene	3.3	U	17	3.3	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Benzo[g,h,i]perylene	3.3	U	17	3.3	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Benzo[k]fluoranthene	3.3	U	17	3.3	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Bis(2-chloroethoxy)methane	17	U	37	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Bis(2-chloroethyl)ether	17	U	37	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Bis(2-ethylhexyl) phthalate	67	U	170	67	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Butylbenzylphthalate	67	U	170	67	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Caprolactam	33	U	170	33	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Carbazole	17	U	37	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Chrysene	3.3	U	17	3.3	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Di-n-butyl phthalate	67	U	170	67	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Di-n-octyl phthalate	67	U	170	67	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Dibenz(a,h)anthracene	6.7	U	17	6.7	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Dibenzofuran	17	U	37	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Diethyl phthalate	67	U	170	67	ug/Kg		11/04/21 17:55	11/04/21 23:43	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Lab Sample ID: MB 410-191025/1-A
Matrix: Solid
Analysis Batch: 191109

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 191025

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dimethyl phthalate	67	U	170	67	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Fluoranthene	3.3	U	17	3.3	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Fluorene	3.3	U	17	3.3	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Hexachlorobenzene	6.7	U	17	6.7	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Hexachlorobutadiene	20	U	50	20	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Hexachlorocyclopentadiene	170	U	500	170	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Hexachloroethane	33	U	170	33	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Indeno[1,2,3-cd]pyrene	4.0	U	17	4.0	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Isophorone	17	U	67	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
N-Nitrosodi-n-propylamine	33	U	67	33	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
N-Nitrosodiphenylamine	17	U	37	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Naphthalene	6.7	U	17	6.7	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Nitrobenzene	17	U	37	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Phenanthrene	4.0	U	17	4.0	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Phenol	17	U	37	17	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Pyrene	3.3	U	17	3.3	ug/Kg		11/04/21 17:55	11/04/21 23:43	1
Pentachlorophenol	67	U	170	67	ug/Kg		11/04/21 17:55	11/04/21 23:43	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
<i>p</i> -Terphenyl-d14 (Surr)	114	S1+	45 - 108	11/04/21 17:55	11/04/21 23:43	1
Nitrobenzene-d5 (Surr)	85		32 - 97	11/04/21 17:55	11/04/21 23:43	1
2-Fluorophenol (Surr)	85		26 - 96	11/04/21 17:55	11/04/21 23:43	1
2-Fluorobiphenyl (Surr)	89		39 - 100	11/04/21 17:55	11/04/21 23:43	1
2,4,6-Tribromophenol (Surr)	102		13 - 121	11/04/21 17:55	11/04/21 23:43	1
Phenol-d5 (Surr)	83		27 - 104	11/04/21 17:55	11/04/21 23:43	1

Lab Sample ID: LCS 410-191025/2-A
Matrix: Solid
Analysis Batch: 191109

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 191025

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2,4,5-Tetrachlorobenzene	1670	1420		ug/Kg		85	60 - 120
2,2'-oxybis[1-chloropropane]	1670	1080		ug/Kg		65	48 - 120
2,3,4,6-Tetrachlorophenol	1670	1550		ug/Kg		93	59 - 120
2,4,5-Trichlorophenol	1670	1670		ug/Kg		100	61 - 120
2,4,6-Trichlorophenol	1670	1640		ug/Kg		98	59 - 120
2,4-Dichlorophenol	1670	1650		ug/Kg		99	62 - 120
2,4-Dimethylphenol	1670	1590		ug/Kg		96	65 - 120
2,4-Dinitrophenol	3330	2920		ug/Kg		88	44 - 120
2,4-Dinitrotoluene	1670	1690		ug/Kg		101	68 - 120
2,6-Dinitrotoluene	1670	1750		ug/Kg		105	67 - 120
2-Chloronaphthalene	1670	1440		ug/Kg		87	61 - 120
2-Chlorophenol	1670	1470		ug/Kg		88	59 - 120
2-Methylnaphthalene	1670	1490		ug/Kg		89	63 - 120
2-Methylphenol	1670	1620		ug/Kg		97	63 - 120
2-Nitroaniline	1670	1740		ug/Kg		105	64 - 120
2-Nitrophenol	1670	1640		ug/Kg		99	55 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Lab Sample ID: LCS 410-191025/2-A

Matrix: Solid

Analysis Batch: 191109

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 191025

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3,3'-Dichlorobenzidine	3330	2340		ug/Kg		70	19 - 120
3-Nitroaniline	1670	983		ug/Kg		59	31 - 120
4,6-Dinitro-2-methylphenol	3330	3680		ug/Kg		110	59 - 120
4-Bromophenyl-phenylether	1670	1700		ug/Kg		102	65 - 120
4-Chloro-3-methylphenol	1670	1650		ug/Kg		99	67 - 120
4-Methylphenol	1670	1490		ug/Kg		90	56 - 120
4-Nitroaniline	1670	1510		ug/Kg		90	59 - 120
4-Nitrophenol	3330	2630		ug/Kg		79	58 - 120
Acenaphthene	1670	1490		ug/Kg		89	61 - 120
Acenaphthylene	1670	1650		ug/Kg		99	69 - 120
Acetophenone	1670	1310		ug/Kg		79	54 - 120
Anthracene	1670	1660		ug/Kg		100	75 - 120
Atrazine	1670	2000		ug/Kg		120	63 - 127
Benzaldehyde	1670	948		ug/Kg		57	25 - 120
Benzo[a]anthracene	1670	1680		ug/Kg		101	73 - 120
Benzo[a]pyrene	1670	1640		ug/Kg		99	80 - 123
Benzo[b]fluoranthene	1670	1700		ug/Kg		102	63 - 120
Benzo[g,h,i]perylene	1670	1800		ug/Kg		108	77 - 120
Benzo[k]fluoranthene	1670	1560		ug/Kg		94	68 - 120
Bis(2-chloroethoxy)methane	1670	1420		ug/Kg		85	55 - 120
Bis(2-chloroethyl)ether	1670	1340		ug/Kg		80	49 - 120
Bis(2-ethylhexyl) phthalate	1670	1770		ug/Kg		106	65 - 120
Butylbenzylphthalate	1670	1660		ug/Kg		100	66 - 120
Caprolactam	1670	1510		ug/Kg		91	54 - 120
Carbazole	1670	1640		ug/Kg		98	74 - 120
Chrysene	1670	1560		ug/Kg		94	66 - 120
Di-n-butyl phthalate	1670	1760		ug/Kg		106	65 - 120
Di-n-octyl phthalate	1670	1930		ug/Kg		116	60 - 125
Dibenz(a,h)anthracene	1670	1810		ug/Kg		109	72 - 120
Dibenzofuran	1670	1530		ug/Kg		92	68 - 120
Diethyl phthalate	1670	1600		ug/Kg		96	65 - 120
Dimethyl phthalate	1670	1550		ug/Kg		93	67 - 120
Fluoranthene	1670	1620		ug/Kg		97	71 - 120
Fluorene	1670	1540		ug/Kg		92	68 - 120
Hexachlorobenzene	1670	1770		ug/Kg		106	58 - 120
Hexachlorobutadiene	1670	1430		ug/Kg		86	48 - 120
Hexachlorocyclopentadiene	1670	1610		ug/Kg		97	43 - 120
Hexachloroethane	1670	1250		ug/Kg		75	48 - 120
Indeno[1,2,3-cd]pyrene	1670	1740		ug/Kg		105	71 - 122
Isophorone	1670	1480		ug/Kg		89	62 - 120
N-Nitrosodi-n-propylamine	1670	1340		ug/Kg		80	55 - 120
N-Nitrosodiphenylamine	1420	1440		ug/Kg		102	71 - 120
Naphthalene	1670	1390		ug/Kg		83	60 - 120
Nitrobenzene	1670	1340		ug/Kg		80	56 - 120
Phenanthrene	1670	1570		ug/Kg		94	74 - 120
Phenol	1670	1390		ug/Kg		83	57 - 120
Pyrene	1670	1530		ug/Kg		92	70 - 120
Pentachlorophenol	3330	3100		ug/Kg		93	41 - 120

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Lab Sample ID: LCS 410-191025/2-A
Matrix: Solid
Analysis Batch: 191109

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 191025

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
<i>p</i> -Terphenyl-d14 (Surr)	109	S1+	45 - 108
Nitrobenzene-d5 (Surr)	82		32 - 97
2-Fluorophenol (Surr)	85		26 - 96
2-Fluorobiphenyl (Surr)	88		39 - 100
2,4,6-Tribromophenol (Surr)	106		13 - 121
Phenol-d5 (Surr)	84		27 - 104

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-191014/1-A
Matrix: Solid
Analysis Batch: 191166

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 191014

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	0.17	U	0.83	0.17	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
alpha-BHC (1C)	0.17	U	0.83	0.17	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
alpha-Chlordane (1C)	0.17	U	0.83	0.17	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
beta-BHC (1C)	0.44	U	1.0	0.44	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
delta-BHC (1C)	0.45	U	1.0	0.45	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
Dieldrin (1C)	0.33	U	1.7	0.33	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
Endosulfan I (1C)	0.22	U	0.83	0.22	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
Endosulfan II (1C)	1.1	U	2.3	1.1	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
Endosulfan sulfate (1C)	0.33	U	1.7	0.33	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
Endrin (1C)	0.68	U	1.7	0.68	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
Endrin aldehyde (1C)	0.33	U	1.7	0.33	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
Endrin ketone (1C)	0.60	U	2.0	0.60	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
gamma-BHC (Lindane) (1C)	0.21	U	0.83	0.21	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
gamma-Chlordane (1C)	0.25	U	0.83	0.25	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
Heptachlor (1C)	0.31	U	0.83	0.31	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
Heptachlor epoxide (1C)	0.17	U	0.83	0.17	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
Methoxychlor (1C)	1.8	U	6.7	1.8	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
Toxaphene (1C)	14	U	33	14	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
p,p'-DDD (1C)	0.33	U	1.7	0.33	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
p,p'-DDE (1C)	0.33	U	1.7	0.33	ug/Kg		11/04/21 17:41	11/05/21 07:39	1
p,p'-DDT (1C)	0.79	U	1.7	0.79	ug/Kg		11/04/21 17:41	11/05/21 07:39	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	102		54 - 143	11/04/21 17:41	11/05/21 07:39	1
DCB Decachlorobiphenyl (Surr) (2C)	94		54 - 143	11/04/21 17:41	11/05/21 07:39	1
Tetrachloro-m-xylene (Surr) (1C)	82		20 - 131	11/04/21 17:41	11/05/21 07:39	1
Tetrachloro-m-xylene (Surr) (2C)	72		20 - 131	11/04/21 17:41	11/05/21 07:39	1

Lab Sample ID: LCS 410-191014/2-A
Matrix: Solid
Analysis Batch: 191166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 191014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Lab Sample ID: LCS 410-191014/2-A
Matrix: Solid
Analysis Batch: 191166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 191014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha-BHC (1C)	3.38	4.06		ug/Kg		120	55 - 135
beta-BHC (1C)	3.33	3.80		ug/Kg		114	50 - 132
delta-BHC (1C)	3.33	4.17		ug/Kg		125	47 - 141
Dieldrin (1C)	6.67	8.07		ug/Kg		121	54 - 136
Endosulfan I (1C)	3.38	3.86		ug/Kg		114	51 - 124
Endosulfan II (1C)	6.71	8.19		ug/Kg		122	56 - 125
Endosulfan sulfate (1C)	6.71	7.91		ug/Kg		118	56 - 125
Endrin (2C)	6.67	8.12		ug/Kg		122	56 - 129
Endrin aldehyde (1C)	6.71	7.09		ug/Kg		106	46 - 133
Endrin ketone (1C)	6.67	7.54		ug/Kg		113	55 - 128
gamma-BHC (Lindane) (1C)	3.33	3.80		ug/Kg		114	52 - 138
Heptachlor (1C)	3.38	3.82		ug/Kg		113	52 - 139
Heptachlor epoxide (1C)	3.33	4.12		ug/Kg		123	55 - 133
Methoxychlor (1C)	33.6	34.7		ug/Kg		103	54 - 148
p,p'-DDD (1C)	6.71	8.25		ug/Kg		123	59 - 135
p,p'-DDE (1C)	6.71	8.28		ug/Kg		123	57 - 135
p,p'-DDT (1C)	6.71	7.24		ug/Kg		108	53 - 151

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	105		54 - 143
DCB Decachlorobiphenyl (Surr) (2C)	95		54 - 143
Tetrachloro-m-xylene (Surr) (1C)	76		20 - 131
Tetrachloro-m-xylene (Surr) (2C)	67		20 - 131

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

Lab Sample ID: MB 410-190993/1-A
Matrix: Solid
Analysis Batch: 191183

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 190993

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	5.3	U	17	5.3	ug/Kg		11/04/21 17:13	11/05/21 07:25	1
PCB-1221 (1C)	5.3	U	17	5.3	ug/Kg		11/04/21 17:13	11/05/21 07:25	1
PCB-1232 (1C)	5.3	U	17	5.3	ug/Kg		11/04/21 17:13	11/05/21 07:25	1
PCB-1242 (1C)	5.3	U	17	5.3	ug/Kg		11/04/21 17:13	11/05/21 07:25	1
PCB-1248 (1C)	5.3	U	17	5.3	ug/Kg		11/04/21 17:13	11/05/21 07:25	1
PCB-1254 (1C)	6.4	U	17	6.4	ug/Kg		11/04/21 17:13	11/05/21 07:25	1
PCB-1260 (1C)	6.4	U	17	6.4	ug/Kg		11/04/21 17:13	11/05/21 07:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (2C)	96		45 - 143	11/04/21 17:13	11/05/21 07:25	1
Tetrachloro-m-xylene (2C)	90		53 - 140	11/04/21 17:13	11/05/21 07:25	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Lab Sample ID: LCS 410-190993/2-A
Matrix: Solid
Analysis Batch: 191183

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 190993

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016 (1C)	167	132		ug/Kg		79	68 - 121
PCB-1260 (1C)	168	155		ug/Kg		92	75 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (2C)	97		45 - 143
Tetrachloro-m-xylene (2C)	91		53 - 140

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-190429/1-A
Matrix: Solid
Analysis Batch: 192295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 190429

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.7	U	5.0	1.7	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Aluminum	11	U	20	11	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Arsenic	1.4	U	3.0	1.4	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Barium	0.15	U	0.50	0.15	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Beryllium	0.10	U	0.50	0.10	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Cadmium	0.10	U	0.50	0.10	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Calcium	12	U	50	12	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Chromium	0.18	U	1.5	0.18	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Cobalt	0.15	U	0.50	0.15	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Copper	0.77	U	2.0	0.77	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Iron	6.2	U	20	6.2	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Lead	0.60	U	1.5	0.60	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Manganese	0.52	U	1.0	0.52	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Nickel	0.26	U	1.0	0.26	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Potassium	20	U	50	20	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Selenium	1.5	U	5.0	1.5	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Silver	0.40	U ^5-	1.0	0.40	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Sodium	46	U	100	46	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Thallium	1.3	U	3.0	1.3	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Zinc	1.0	U	2.0	1.0	mg/Kg		11/03/21 16:05	11/08/21 20:28	1
Vanadium	0.43	U	1.0	0.43	mg/Kg		11/03/21 16:05	11/08/21 20:28	1

Lab Sample ID: MB 410-190429/1-A
Matrix: Solid
Analysis Batch: 192596

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 190429

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	4.0	U ^5-	10	4.0	mg/Kg		11/03/21 16:05	11/09/21 10:47	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Lab Sample ID: LCS 410-190429/2-A
Matrix: Solid
Analysis Batch: 192295

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 190429
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	10.0	10.3		mg/Kg		104	80 - 120
Aluminum	500	518		mg/Kg		104	80 - 120
Arsenic	50.0	51.7		mg/Kg		103	80 - 120
Barium	50.0	53.9		mg/Kg		108	80 - 120
Beryllium	5.00	5.17		mg/Kg		103	80 - 120
Cadmium	5.00	5.36		mg/Kg		107	80 - 120
Calcium	500	508		mg/Kg		102	80 - 120
Chromium	50.0	54.4		mg/Kg		109	80 - 120
Cobalt	50.0	55.2		mg/Kg		110	80 - 120
Copper	50.0	52.9		mg/Kg		106	80 - 120
Iron	500	522		mg/Kg		104	80 - 120
Lead	5.00	5.29		mg/Kg		106	80 - 120
Manganese	50.0	52.9		mg/Kg		106	80 - 120
Nickel	50.0	54.7		mg/Kg		109	80 - 120
Potassium	500	520		mg/Kg		104	80 - 120
Selenium	10.0	11.0		mg/Kg		110	80 - 120
Silver	5.00	5.48	^5-	mg/Kg		110	80 - 120
Sodium	500	506		mg/Kg		101	80 - 120
Thallium	9.99	8.79		mg/Kg		88	80 - 120
Zinc	50.0	52.1		mg/Kg		104	80 - 120
Vanadium	50.0	52.9		mg/Kg		106	80 - 120

Lab Sample ID: LCS 410-190429/2-A
Matrix: Solid
Analysis Batch: 192596

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 190429
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Magnesium	500	514	^5-	mg/Kg		103	80 - 120

Lab Sample ID: LCSD 410-190429/3-A
Matrix: Solid
Analysis Batch: 192295

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 190429
%Rec.

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Antimony	10.0	10.4		mg/Kg		104	80 - 120	1	20
Aluminum	500	531		mg/Kg		106	80 - 120	2	20
Arsenic	50.0	51.4		mg/Kg		103	80 - 120	1	20
Barium	50.0	54.1		mg/Kg		108	80 - 120	0	20
Beryllium	5.00	5.18		mg/Kg		104	80 - 120	0	20
Cadmium	5.00	5.39		mg/Kg		108	80 - 120	0	20
Calcium	500	508		mg/Kg		102	80 - 120	0	20
Chromium	50.0	54.8		mg/Kg		110	80 - 120	1	20
Cobalt	50.0	55.1		mg/Kg		110	80 - 120	0	20
Copper	50.0	53.2		mg/Kg		106	80 - 120	1	20
Iron	500	521		mg/Kg		104	80 - 120	0	20
Lead	5.00	5.40		mg/Kg		108	80 - 120	2	20
Manganese	50.0	53.3		mg/Kg		107	80 - 120	1	20
Nickel	50.0	54.6		mg/Kg		109	80 - 120	0	20
Potassium	500	517		mg/Kg		103	80 - 120	1	20

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

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

Lab Sample ID: LCSD 410-190429/3-A
Matrix: Solid
Analysis Batch: 192295

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 190429

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Selenium	10.0	10.9		mg/Kg		109	80 - 120	1	20
Silver	5.00	5.50	^5-	mg/Kg		110	80 - 120	0	20
Sodium	500	506		mg/Kg		101	80 - 120	0	20
Thallium	9.99	8.92		mg/Kg		89	80 - 120	1	20
Zinc	50.0	52.0		mg/Kg		104	80 - 120	0	20
Vanadium	50.0	53.1		mg/Kg		106	80 - 120	0	20

Lab Sample ID: LCSD 410-190429/3-A
Matrix: Solid
Analysis Batch: 192596

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 190429

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Magnesium	500	513	^5-	mg/Kg		103	80 - 120	0	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-190561/1-A
Matrix: Solid
Analysis Batch: 191384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 190561

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025	U	0.060	0.025	mg/Kg		11/03/21 21:40	11/05/21 12:26	1

Lab Sample ID: LCS 410-190561/2-A
Matrix: Solid
Analysis Batch: 191384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 190561

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.183		mg/Kg		110	80 - 120

Lab Sample ID: LCSD 410-190561/3-A
Matrix: Solid
Analysis Batch: 191384

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 190561

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.167	0.175		mg/Kg		105	80 - 120	5	20

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

GC/MS VOA

Prep Batch: 190420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-1	GI-10 (3.5-4.0)	Total/NA	Solid	5035	
410-61668-2	PS-021 (5.0-5.5)	Total/NA	Solid	5035	

Analysis Batch: 191422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-2	PS-021 (5.0-5.5)	Total/NA	Solid	8260C	190420
MB 410-191422/7	Method Blank	Total/NA	Solid	8260C	
LCS 410-191422/4	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-191422/5	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 192672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-1	GI-10 (3.5-4.0)	Total/NA	Solid	8260C	190420
MB 410-192672/8	Method Blank	Total/NA	Solid	8260C	
LCS 410-192672/5	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-192672/6	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 191025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-1	GI-10 (3.5-4.0)	Total/NA	Solid	3546	
410-61668-1 - DL	GI-10 (3.5-4.0)	Total/NA	Solid	3546	
410-61668-2	PS-021 (5.0-5.5)	Total/NA	Solid	3546	
410-61668-2 - DL	PS-021 (5.0-5.5)	Total/NA	Solid	3546	
MB 410-191025/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-191025/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 191109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-1	GI-10 (3.5-4.0)	Total/NA	Solid	8270D	191025
410-61668-2	PS-021 (5.0-5.5)	Total/NA	Solid	8270D	191025
MB 410-191025/1-A	Method Blank	Total/NA	Solid	8270D	191025
LCS 410-191025/2-A	Lab Control Sample	Total/NA	Solid	8270D	191025

Analysis Batch: 191469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-1 - DL	GI-10 (3.5-4.0)	Total/NA	Solid	8270D	191025
410-61668-2 - DL	PS-021 (5.0-5.5)	Total/NA	Solid	8270D	191025

GC Semi VOA

Prep Batch: 190993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-1	GI-10 (3.5-4.0)	Total/NA	Solid	3546	
410-61668-2	PS-021 (5.0-5.5)	Total/NA	Solid	3546	
MB 410-190993/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-190993/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 191014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-1	GI-10 (3.5-4.0)	Total/NA	Solid	3546	

Eurofins Lancaster Laboratories Env, LLC

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

GC Semi VOA (Continued)

Prep Batch: 191014 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-2	PS-021 (5.0-5.5)	Total/NA	Solid	3546	
MB 410-191014/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-191014/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 191166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-1	GI-10 (3.5-4.0)	Total/NA	Solid	8081B	191014
410-61668-2	PS-021 (5.0-5.5)	Total/NA	Solid	8081B	191014
MB 410-191014/1-A	Method Blank	Total/NA	Solid	8081B	191014
LCS 410-191014/2-A	Lab Control Sample	Total/NA	Solid	8081B	191014

Analysis Batch: 191183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-1	GI-10 (3.5-4.0)	Total/NA	Solid	8082A	190993
410-61668-2	PS-021 (5.0-5.5)	Total/NA	Solid	8082A	190993
MB 410-190993/1-A	Method Blank	Total/NA	Solid	8082A	190993
LCS 410-190993/2-A	Lab Control Sample	Total/NA	Solid	8082A	190993

Metals

Prep Batch: 190429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-1	GI-10 (3.5-4.0)	Total/NA	Solid	3050B	
410-61668-2	PS-021 (5.0-5.5)	Total/NA	Solid	3050B	
MB 410-190429/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-190429/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 410-190429/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	

Prep Batch: 190561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-1	GI-10 (3.5-4.0)	Total/NA	Solid	7471B	
410-61668-2	PS-021 (5.0-5.5)	Total/NA	Solid	7471B	
MB 410-190561/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-190561/2-A	Lab Control Sample	Total/NA	Solid	7471B	
LCSD 410-190561/3-A	Lab Control Sample Dup	Total/NA	Solid	7471B	

Analysis Batch: 191384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-1	GI-10 (3.5-4.0)	Total/NA	Solid	7471B	190561
410-61668-2	PS-021 (5.0-5.5)	Total/NA	Solid	7471B	190561
MB 410-190561/1-A	Method Blank	Total/NA	Solid	7471B	190561
LCS 410-190561/2-A	Lab Control Sample	Total/NA	Solid	7471B	190561
LCSD 410-190561/3-A	Lab Control Sample Dup	Total/NA	Solid	7471B	190561

Analysis Batch: 192295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-1	GI-10 (3.5-4.0)	Total/NA	Solid	6010D	190429
410-61668-2	PS-021 (5.0-5.5)	Total/NA	Solid	6010D	190429
MB 410-190429/1-A	Method Blank	Total/NA	Solid	6010D	190429
LCS 410-190429/2-A	Lab Control Sample	Total/NA	Solid	6010D	190429
LCSD 410-190429/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	190429

Eurofins Lancaster Laboratories Env, LLC

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Metals

Analysis Batch: 192596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-1	GI-10 (3.5-4.0)	Total/NA	Solid	6010D	190429
410-61668-2	PS-021 (5.0-5.5)	Total/NA	Solid	6010D	190429
MB 410-190429/1-A	Method Blank	Total/NA	Solid	6010D	190429
LCS 410-190429/2-A	Lab Control Sample	Total/NA	Solid	6010D	190429
LCSD 410-190429/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	190429

General Chemistry

Analysis Batch: 190490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-61668-1	GI-10 (3.5-4.0)	Total/NA	Solid	Moisture	
410-61668-2	PS-021 (5.0-5.5)	Total/NA	Solid	Moisture	

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Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Client Sample ID: GI-10 (3.5-4.0)

Lab Sample ID: 410-61668-1

Date Collected: 11/01/21 09:15

Matrix: Solid

Date Received: 11/03/21 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	190490	11/03/21 18:09	OEL4	ELLE

Client Sample ID: GI-10 (3.5-4.0)

Lab Sample ID: 410-61668-1

Date Collected: 11/01/21 09:15

Matrix: Solid

Date Received: 11/03/21 11:00

Percent Solids: 94.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			190420	11/03/21 15:42	UK3O	ELLE
Total/NA	Analysis	8260C		50	192672	11/09/21 21:46	CBV6	ELLE
Total/NA	Prep	3546			191025	11/04/21 17:55	D7SW	ELLE
Total/NA	Analysis	8270D		1	191109	11/05/21 09:07	W6XI	ELLE
Total/NA	Prep	3546	DL		191025	11/04/21 17:55	D7SW	ELLE
Total/NA	Analysis	8270D	DL	10	191469	11/05/21 21:23	SJ89	ELLE
Total/NA	Prep	3546			191014	11/04/21 17:41	D7SW	ELLE
Total/NA	Analysis	8081B		20	191166	11/05/21 11:19	WN7O	ELLE
Total/NA	Prep	3546			190993	11/04/21 17:13	D7SW	ELLE
Total/NA	Analysis	8082A		1	191183	11/05/21 08:17	JC94	ELLE
Total/NA	Prep	3050B			190429	11/03/21 16:05	UJLA	ELLE
Total/NA	Analysis	6010D		1	192295	11/08/21 21:13	UCIG	ELLE
Total/NA	Prep	3050B			190429	11/03/21 16:05	UJLA	ELLE
Total/NA	Analysis	6010D		1	192596	11/09/21 11:28	WJM9	ELLE
Total/NA	Prep	7471B			190561	11/03/21 21:40	UJLA	ELLE
Total/NA	Analysis	7471B		1	191384	11/05/21 12:44	UEFS	ELLE

Client Sample ID: PS-021 (5.0-5.5)

Lab Sample ID: 410-61668-2

Date Collected: 11/01/21 11:00

Matrix: Solid

Date Received: 11/03/21 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	190490	11/03/21 18:09	OEL4	ELLE

Client Sample ID: PS-021 (5.0-5.5)

Lab Sample ID: 410-61668-2

Date Collected: 11/01/21 11:00

Matrix: Solid

Date Received: 11/03/21 11:00

Percent Solids: 88.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			190420	11/03/21 15:42	UK3O	ELLE
Total/NA	Analysis	8260C		50	191422	11/05/21 20:11	UCB5	ELLE
Total/NA	Prep	3546			191025	11/04/21 17:55	D7SW	ELLE
Total/NA	Analysis	8270D		1	191109	11/05/21 09:30	W6XI	ELLE
Total/NA	Prep	3546	DL		191025	11/04/21 17:55	D7SW	ELLE
Total/NA	Analysis	8270D	DL	10	191469	11/05/21 21:47	SJ89	ELLE
Total/NA	Prep	3546			191014	11/04/21 17:41	D7SW	ELLE
Total/NA	Analysis	8081B		100	191166	11/05/21 11:39	WN7O	ELLE

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Client Sample ID: PS-021 (5.0-5.5)

Lab Sample ID: 410-61668-2

Date Collected: 11/01/21 11:00

Matrix: Solid

Date Received: 11/03/21 11:00

Percent Solids: 88.6

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3546			190993	11/04/21 17:13	D7SW	ELLE
Total/NA	Analysis	8082A		5	191183	11/05/21 08:27	JC94	ELLE
Total/NA	Prep	3050B			190429	11/03/21 16:05	UJLA	ELLE
Total/NA	Analysis	6010D		1	192295	11/08/21 21:09	UCIG	ELLE
Total/NA	Prep	3050B			190429	11/03/21 16:05	UJLA	ELLE
Total/NA	Analysis	6010D		1	192596	11/09/21 11:18	WJM9	ELLE
Total/NA	Prep	7471B			190561	11/03/21 21:40	UJLA	ELLE
Total/NA	Analysis	7471B		1	191384	11/05/21 12:53	UEFS	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22

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
8260C	5035	Solid	m&p-Xylene
8260C	5035	Solid	o-Xylene
Moisture		Solid	Percent Moisture

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Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
6010D	Metals (ICP)	SW846	ELLE
7471B	Mercury (CVAA)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
7471B	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-61668-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-61668-1	GI-10 (3.5-4.0)	Solid	11/01/21 09:15	11/03/21 11:00
410-61668-2	PS-021 (5.0-5.5)	Solid	11/01/21 11:00	11/03/21 11:00

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Add

410-61668 Chain of Custody

Baltimore #201

Chain of Custody Record

552164



Environment Testing TestAmerica

Regulatory Program: DW NPDES RCRA Other: VADEP

TAL-8210

Project Manager: Ashley Sweeney	Site Contact:	Date: 11/2/21	COC No:
Company Name: Raw Associates	Tel/Email: asweeney@rawinc.com	Carrier:	1 of COCs
Address: 402 Heron Drive	Analysis Turnaround Time		Sampler:
City/State/Zip: Heron Ave, NJ 08085	<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		For Lab Use Only:
Phone: 956-4203-8000	TAT if different from Below		Walk-in Client:
Fax:	<input checked="" type="checkbox"/> 2 weeks		Lab Sampling:
Project Name: Mueser-Alexandria, VA	<input type="checkbox"/> 1 week		Job / SDG No.:
Site: Alexandria, Virginia	<input type="checkbox"/> 2 days		
P O #:	<input type="checkbox"/> 1 day		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TCL VOCs	TCL SVOCs	Pesticides	TAL Metals	PCBs	Mercury	Sample Specific Notes:
GI-10(3.5-4.0)	11/1/21	915	G	Soil	6			X	X	X	X	X	X	
PS-02P(5.0-5.5)	11/1/21	1100	G	Soil	6			X	X	X	X	X	X	

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Non-Hazard Flammable Skin Irritant Poison B Unknown Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: Yes No

Custody Seal No.:

Cooler Temp. (°C): Obs'd: 0.8 Corr'd: 0.8 Therm ID No.: DT 42-01

Relinquished by: <i>MurKempie Co</i>	Company: Raw	Date/Time: 11/2/21 1425	Received by: <i>[Signature]</i>	Company: <i>[Signature]</i>	Date/Time: 11/2/21 1425
Relinquished by: <i>[Signature]</i>	Company: <i>[Signature]</i>	Date/Time: 11/2/21 1200	Received by: <i>[Signature]</i>	Company: <i>[Signature]</i>	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: <i>[Signature]</i>	Company: <i>[Signature]</i>	Date/Time: 11/3/21 1100

DB

[Signature]



Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-61668-1

Login Number: 61668

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Bryan, Debra A

Question	Answer	Comment
The cooler's custody seal is intact.	True	
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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-62150-1
Client Project/Site: Mueser - Alexandria, VA

For:
Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
11/19/2021 9:52:54 AM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Kelly Tessier

Kelly Tessier
Project Manager
11/19/2021 9:52:54 AM



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Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

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
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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
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

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

Glossary (Continued)

Abbreviation **These commonly used abbreviations may or may not be present in this report.**

TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

Job ID: 410-62150-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-62150-1

Receipt

The sample was received on 11/5/2021 11:08 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.7°C

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

GC/MS VOA

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

GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) associated with batch 410-193914 recovered above the upper control limit for 2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol and Di-n-octyl phthalate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

PCBs

Method 8082A: The continuing calibration verification (CCV) associated with batch 410-195347 recovered outside acceptance criteria, high biased, for %D for DCB Decachlorobiphenyl (Surr) on one column. Results are confirmed on both columns and reported from the passing column. BH-15 (5.5-6.0) (410-62150-1)

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

Pesticides

Method 8081B: The continuing calibration verification (CCV) recovered above the upper control limit for DCB Decachlorobiphenyl (Surr) on one column. Results were reported from the passing column. BH-15 (5.5-6.0) (410-62150-1)

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

Metals

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.

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

Client Sample ID: BH-15 (5.5-6.0)

Lab Sample ID: 410-62150-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	11	J	24	7.2	ug/Kg	1	*	*	8260C	Total/NA
2-Butanone	2.4	J	12	2.4	ug/Kg	1	*	*	8260C	Total/NA
2-Methylnaphthalene	95		22	6.6	ug/Kg	1	*	*	8270D	Total/NA
Acenaphthylene	39		22	5.2	ug/Kg	1	*	*	8270D	Total/NA
Anthracene	40		22	4.4	ug/Kg	1	*	*	8270D	Total/NA
Benzo[a]anthracene	130		22	4.4	ug/Kg	1	*	*	8270D	Total/NA
Benzo[a]pyrene	140		22	4.4	ug/Kg	1	*	*	8270D	Total/NA
Benzo[b]fluoranthene	210		22	4.4	ug/Kg	1	*	*	8270D	Total/NA
Benzo[g,h,i]perylene	120		22	4.4	ug/Kg	1	*	*	8270D	Total/NA
Benzo[k]fluoranthene	74		22	4.4	ug/Kg	1	*	*	8270D	Total/NA
Chrysene	150		22	4.4	ug/Kg	1	*	*	8270D	Total/NA
Dibenz(a,h)anthracene	30		22	8.7	ug/Kg	1	*	*	8270D	Total/NA
Dibenzofuran	34	J	48	22	ug/Kg	1	*	*	8270D	Total/NA
Fluoranthene	190		22	4.4	ug/Kg	1	*	*	8270D	Total/NA
Fluorene	20	J	22	4.4	ug/Kg	1	*	*	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	97		22	5.2	ug/Kg	1	*	*	8270D	Total/NA
Naphthalene	65		22	8.7	ug/Kg	1	*	*	8270D	Total/NA
Phenanthrene	160		22	5.2	ug/Kg	1	*	*	8270D	Total/NA
Pyrene	190		22	4.4	ug/Kg	1	*	*	8270D	Total/NA
Aluminum	21000	^5-	19	10	mg/Kg	1	*	*	6010D	Total/NA
Arsenic	23		2.9	1.4	mg/Kg	1	*	*	6010D	Total/NA
Barium	180		0.48	0.15	mg/Kg	1	*	*	6010D	Total/NA
Beryllium	1.1		0.48	0.097	mg/Kg	1	*	*	6010D	Total/NA
Cadmium	0.66		0.48	0.097	mg/Kg	1	*	*	6010D	Total/NA
Calcium	2200		48	12	mg/Kg	1	*	*	6010D	Total/NA
Chromium	31		1.5	0.17	mg/Kg	1	*	*	6010D	Total/NA
Cobalt	15		0.48	0.14	mg/Kg	1	*	*	6010D	Total/NA
Copper	52		1.9	0.75	mg/Kg	1	*	*	6010D	Total/NA
Iron	37000		97	30	mg/Kg	5	*	*	6010D	Total/NA
Lead	110		1.5	0.58	mg/Kg	1	*	*	6010D	Total/NA
Magnesium	2900		9.7	3.9	mg/Kg	1	*	*	6010D	Total/NA
Manganese	250		0.97	0.50	mg/Kg	1	*	*	6010D	Total/NA
Nickel	24		0.97	0.25	mg/Kg	1	*	*	6010D	Total/NA
Potassium	1800		48	20	mg/Kg	1	*	*	6010D	Total/NA
Silver	0.51	J ^5-	0.97	0.39	mg/Kg	1	*	*	6010D	Total/NA
Sodium	110		97	45	mg/Kg	1	*	*	6010D	Total/NA
Zinc	170		1.9	0.97	mg/Kg	1	*	*	6010D	Total/NA
Vanadium	46		0.97	0.42	mg/Kg	1	*	*	6010D	Total/NA
Mercury	0.29		0.075	0.031	mg/Kg	1	*	*	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

Client Sample ID: BH-15 (5.5-6.0)

Lab Sample ID: 410-62150-1

Date Collected: 11/04/21 09:55

Matrix: Solid

Date Received: 11/05/21 11:08

Percent Solids: 75.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.48	U	6.0	0.48	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
trans-1,3-Dichloropropene	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Ethylbenzene	0.48	U	6.0	0.48	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Styrene	0.48	U	6.0	0.48	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
1,4-Dichlorobenzene	0.48	U	6.0	0.48	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
1,2-Dibromoethane	0.48	U	6.0	0.48	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
1,2-Dichloroethane	0.72	U	6.0	0.72	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
4-Methyl-2-pentanone	1.2	U	12	1.2	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Methylcyclohexane	0.72	U	6.0	0.72	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Toluene	0.72	U	6.0	0.72	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Chlorobenzene	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Cyclohexane	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
1,2,4-Trichlorobenzene	6.0	U	12	6.0	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
1,4-Dioxane	44	U	300	44	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Dibromochloromethane	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Tetrachloroethene	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
cis-1,2-Dichloroethene	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
trans-1,2-Dichloroethene	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Methyl tertiary butyl ether	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
m&p-Xylene	1.2	U	6.0	1.2	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
1,3-Dichlorobenzene	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Carbon tetrachloride	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
2-Hexanone	1.2	U	12	1.2	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Acetone	11	J	24	7.2	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Chloroform	0.72	U	6.0	0.72	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Benzene	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
1,1,1-Trichloroethane	0.72	U	6.0	0.72	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Bromomethane	0.84	U	6.0	0.84	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Chloromethane	0.72	U	6.0	0.72	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Bromochloromethane	0.72	U	6.0	0.72	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Chloroethane	1.2	U	6.0	1.2	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Vinyl chloride	0.72	U	6.0	0.72	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Methylene Chloride	2.4	U	6.0	2.4	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Carbon disulfide	0.72	U	6.0	0.72	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Bromoform	6.0	U	12	6.0	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Bromodichloromethane	0.48	U	6.0	0.48	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
1,1-Dichloroethane	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
1,1-Dichloroethene	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Trichlorofluoromethane	0.84	U	6.0	0.84	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Dichlorodifluoromethane	0.72	U *+	6.0	0.72	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Freon 113	0.72	U	12	0.72	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
1,2-Dichloropropane	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
2-Butanone	2.4	J	12	2.4	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
1,1,2-Trichloroethane	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Trichloroethene	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Methyl acetate	1.2	U	6.0	1.2	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
1,1,2,2-Tetrachloroethane	0.48	U	6.0	0.48	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
1,2,3-Trichlorobenzene	6.0	U	12	6.0	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
o-Xylene	0.48	U	6.0	0.48	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

Client Sample ID: BH-15 (5.5-6.0)

Lab Sample ID: 410-62150-1

Date Collected: 11/04/21 09:55

Matrix: Solid

Date Received: 11/05/21 11:08

Percent Solids: 75.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
1,2-Dibromo-3-Chloropropane	0.60	U	6.0	0.60	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Isopropylbenzene	0.48	U	6.0	0.48	ug/Kg	☼	11/05/21 23:06	11/09/21 01:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		54 - 135				11/05/21 23:06	11/09/21 01:07	1
4-Bromofluorobenzene (Surr)	102		50 - 131				11/05/21 23:06	11/09/21 01:07	1
Dibromofluoromethane (Surr)	104		50 - 141				11/05/21 23:06	11/09/21 01:07	1
Toluene-d8 (Surr)	99		52 - 141				11/05/21 23:06	11/09/21 01:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	22	U	48	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
1,2,4,5-Tetrachlorobenzene	22	U	48	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
2,2'-oxybis[1-chloropropane]	26	U	57	26	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
2,3,4,6-Tetrachlorophenol	87	U	220	87	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
2,4,5-Trichlorophenol	22	U	48	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
2,4,6-Trichlorophenol	22	U	48	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
2,4-Dichlorophenol	26	U	57	26	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
2,4-Dimethylphenol	22	U	48	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
2,4-Dinitrophenol	220	U	1300	220	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
2,4-Dinitrotoluene	44	U	220	44	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
2,6-Dinitrotoluene	22	U	48	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
2-Chloronaphthalene	17	U	44	17	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
2-Chlorophenol	22	U	48	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
2-Methylnaphthalene	95		22	6.6	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
2-Methylphenol	26	U	66	26	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
2-Nitroaniline	22	U	66	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
2-Nitrophenol	26	U	66	26	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
3,3'-Dichlorobenzidine	44	U	220	44	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
3-Nitroaniline	44	U	220	44	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
4,6-Dinitro-2-methylphenol	220	U *	660	220	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
4-Bromophenyl-phenylether	22	U	48	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
4-Chloro-3-methylphenol	26	U	66	26	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
4-Methylphenol	22	U	66	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
4-Nitroaniline	44	U	220	44	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
4-Nitrophenol	220	U	660	220	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Acenaphthene	4.4	U	22	4.4	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Acenaphthylene	39		22	5.2	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Acetophenone	22	U	66	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Anthracene	40		22	4.4	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Atrazine	87	U	220	87	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Benzaldehyde	44	U	220	44	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Benzo[a]anthracene	130		22	4.4	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Benzo[a]pyrene	140		22	4.4	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Benzo[b]fluoranthene	210		22	4.4	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Benzo[g,h,i]perylene	120		22	4.4	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Benzo[k]fluoranthene	74		22	4.4	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Bis(2-chloroethoxy)methane	22	U	48	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Bis(2-chloroethyl)ether	22	U	48	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

Client Sample ID: BH-15 (5.5-6.0)

Lab Sample ID: 410-62150-1

Date Collected: 11/04/21 09:55

Matrix: Solid

Date Received: 11/05/21 11:08

Percent Solids: 75.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	87	U	220	87	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Butylbenzylphthalate	87	U	220	87	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Caprolactam	44	U	220	44	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Carbazole	22	U	48	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Chrysene	150		22	4.4	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Di-n-butyl phthalate	87	U	220	87	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Di-n-octyl phthalate	87	U	220	87	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Dibenz(a,h)anthracene	30		22	8.7	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Dibenzofuran	34 J		48	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Diethyl phthalate	87	U	220	87	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Dimethyl phthalate	87	U	220	87	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Fluoranthene	190		22	4.4	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Fluorene	20 J		22	4.4	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Hexachlorobenzene	8.7	U	22	8.7	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Hexachlorobutadiene	26	U	66	26	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Hexachlorocyclopentadiene	220	U	660	220	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Hexachloroethane	44	U	220	44	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Indeno[1,2,3-cd]pyrene	97		22	5.2	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Isophorone	22	U	87	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
N-Nitrosodi-n-propylamine	44	U	87	44	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
N-Nitrosodiphenylamine	22	U	48	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Naphthalene	65		22	8.7	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Nitrobenzene	22	U	48	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Phenanthrene	160		22	5.2	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Phenol	22	U	48	22	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Pyrene	190		22	4.4	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1
Pentachlorophenol	87	U	220	87	ug/Kg	☼	11/08/21 10:38	11/12/21 01:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	89		45 - 108	11/08/21 10:38	11/12/21 01:26	1
Nitrobenzene-d5 (Surr)	68		32 - 97	11/08/21 10:38	11/12/21 01:26	1
2-Fluorophenol (Surr)	74		26 - 96	11/08/21 10:38	11/12/21 01:26	1
2-Fluorobiphenyl (Surr)	81		39 - 100	11/08/21 10:38	11/12/21 01:26	1
2,4,6-Tribromophenol (Surr)	77		13 - 121	11/08/21 10:38	11/12/21 01:26	1
Phenol-d5 (Surr)	74		27 - 104	11/08/21 10:38	11/12/21 01:26	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	0.22	U	1.1	0.22	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
alpha-BHC (1C)	0.22	U	1.1	0.22	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
alpha-Chlordane (1C)	0.22	U	1.1	0.22	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
beta-BHC (1C)	0.57	U	1.3	0.57	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
delta-BHC (1C)	0.59	U	1.3	0.59	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
Dieldrin (1C)	0.43	U	2.2	0.43	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
Endosulfan I (1C)	0.29	U	1.1	0.29	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
Endosulfan II (1C)	1.4	U	3.0	1.4	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
Endosulfan sulfate (1C)	0.43	U	2.2	0.43	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
Endrin (1C)	0.89	U	2.2	0.89	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
Endrin aldehyde (1C)	0.43	U	2.2	0.43	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
Endrin ketone (1C)	0.78	U	2.6	0.78	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

Client Sample ID: BH-15 (5.5-6.0)

Lab Sample ID: 410-62150-1

Date Collected: 11/04/21 09:55

Matrix: Solid

Date Received: 11/05/21 11:08

Percent Solids: 75.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane) (1C)	0.27	U	1.1	0.27	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
gamma-Chlordane (1C)	0.33	U	1.1	0.33	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
Heptachlor (1C)	0.40	U	1.1	0.40	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
Heptachlor epoxide (1C)	0.22	U	1.1	0.22	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
Methoxychlor (1C)	2.3	U	8.7	2.3	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
Toxaphene (1C)	18	U	43	18	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
p,p'-DDD (1C)	0.43	U	2.2	0.43	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
p,p'-DDE (1C)	0.43	U	2.2	0.43	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1
p,p'-DDT (1C)	1.0	U	2.2	1.0	ug/Kg	☼	11/16/21 10:06	11/17/21 09:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	91		54 - 143	11/16/21 10:06	11/17/21 09:01	1
DCB Decachlorobiphenyl (Surr) (2C)	104		54 - 143	11/16/21 10:06	11/17/21 09:01	1
Tetrachloro-m-xylene (Surr) (1C)	92		20 - 131	11/16/21 10:06	11/17/21 09:01	1
Tetrachloro-m-xylene (Surr) (2C)	95		20 - 131	11/16/21 10:06	11/17/21 09:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	6.9	U	22	6.9	ug/Kg	☼	11/15/21 10:27	11/16/21 09:18	1
PCB-1221 (2C)	6.9	U	22	6.9	ug/Kg	☼	11/15/21 10:27	11/16/21 09:18	1
PCB-1232 (2C)	6.9	U	22	6.9	ug/Kg	☼	11/15/21 10:27	11/16/21 09:18	1
PCB-1242 (2C)	6.9	U	22	6.9	ug/Kg	☼	11/15/21 10:27	11/16/21 09:18	1
PCB-1248 (2C)	6.9	U	22	6.9	ug/Kg	☼	11/15/21 10:27	11/16/21 09:18	1
PCB-1254 (2C)	8.3	U	22	8.3	ug/Kg	☼	11/15/21 10:27	11/16/21 09:18	1
PCB-1260 (2C)	8.3	U	22	8.3	ug/Kg	☼	11/15/21 10:27	11/16/21 09:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	99		45 - 143	11/15/21 10:27	11/16/21 09:18	1
DCB Decachlorobiphenyl (Surr) (2C)	102		45 - 143	11/15/21 10:27	11/16/21 09:18	1
Tetrachloro-m-xylene (1C)	97		53 - 140	11/15/21 10:27	11/16/21 09:18	1
Tetrachloro-m-xylene (2C)	86		53 - 140	11/15/21 10:27	11/16/21 09:18	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.6	U	4.8	1.6	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Aluminum	21000	^5-	19	10	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Arsenic	23		2.9	1.4	mg/Kg	☼	11/07/21 08:16	11/15/21 15:46	1
Barium	180		0.48	0.15	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Beryllium	1.1		0.48	0.097	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Cadmium	0.66		0.48	0.097	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Calcium	2200		48	12	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Chromium	31		1.5	0.17	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Cobalt	15		0.48	0.14	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Copper	52		1.9	0.75	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Iron	37000		97	30	mg/Kg	☼	11/07/21 08:16	11/15/21 15:50	5
Lead	110		1.5	0.58	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Magnesium	2900		9.7	3.9	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Manganese	250		0.97	0.50	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Nickel	24		0.97	0.25	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Potassium	1800		48	20	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1

Client Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

Client Sample ID: BH-15 (5.5-6.0)

Lab Sample ID: 410-62150-1

Date Collected: 11/04/21 09:55

Matrix: Solid

Date Received: 11/05/21 11:08

Percent Solids: 75.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	1.5	U	4.8	1.5	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Silver	0.51	J ^5-	0.97	0.39	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Sodium	110		97	45	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Thallium	1.3	U	2.9	1.3	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Zinc	170		1.9	0.97	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1
Vanadium	46		0.97	0.42	mg/Kg	☼	11/07/21 08:16	11/11/21 23:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.29		0.075	0.031	mg/Kg	☼	11/08/21 12:38	11/10/21 15:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.6		1.0	1.0	%			11/08/21 09:11	1

DRAFT

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- 14
- 15

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (54-135)	BFB (50-131)	DBFM (50-141)	TOL (52-141)
410-62150-1	BH-15 (5.5-6.0)	108	102	104	99
LCS 410-192184/6	Lab Control Sample	104	102	101	98
LCSD 410-192184/7	Lab Control Sample Dup	103	101	101	98
MB 410-192184/9	Method Blank	103	101	101	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (45-108)	NBZ (32-97)	2FP (26-96)	FBP (39-100)	TBP (13-121)	PHL (27-104)
410-62150-1	BH-15 (5.5-6.0)	89	68	74	81	77	74
LCS 410-191838/2-A	Lab Control Sample	98	74	75	83	85	78
MB 410-191838/1-A	Method Blank	95	74	77	80	74	76

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (54-143)	DCB2 (54-143)	TCX1 (20-131)	TCX2 (20-131)
410-62150-1	BH-15 (5.5-6.0)	91	104	92	95
LCS 410-195125/2-A	Lab Control Sample	83	94	45	47
MB 410-195125/1-A	Method Blank	90	108	66	69

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (45-143)	DCB2 (45-143)	TCX1 (53-140)	TCX2 (53-140)
410-62150-1	BH-15 (5.5-6.0)	99	102	97	86
LCS 410-194673/2-A	Lab Control Sample	113	107	109	97
MB 410-194673/1-A	Method Blank	132	118	123	107

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

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QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

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

Lab Sample ID: MB 410-192184/9

Matrix: Solid

Analysis Batch: 192184

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	0.40	U	5.0	0.40	ug/Kg			11/08/21 21:18	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
Ethylbenzene	0.40	U	5.0	0.40	ug/Kg			11/08/21 21:18	1
Styrene	0.40	U	5.0	0.40	ug/Kg			11/08/21 21:18	1
1,4-Dichlorobenzene	0.40	U	5.0	0.40	ug/Kg			11/08/21 21:18	1
1,2-Dibromoethane	0.40	U	5.0	0.40	ug/Kg			11/08/21 21:18	1
1,2-Dichloroethane	0.60	U	5.0	0.60	ug/Kg			11/08/21 21:18	1
4-Methyl-2-pentanone	1.0	U	10	1.0	ug/Kg			11/08/21 21:18	1
Methylcyclohexane	0.60	U	5.0	0.60	ug/Kg			11/08/21 21:18	1
Toluene	0.60	U	5.0	0.60	ug/Kg			11/08/21 21:18	1
Chlorobenzene	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
Cyclohexane	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
1,2,4-Trichlorobenzene	5.0	U	10	5.0	ug/Kg			11/08/21 21:18	1
1,4-Dioxane	37	U	250	37	ug/Kg			11/08/21 21:18	1
Dibromochloromethane	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
Tetrachloroethene	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
cis-1,2-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
trans-1,2-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
Methyl tertiary butyl ether	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
m&p-Xylene	1.0	U	5.0	1.0	ug/Kg			11/08/21 21:18	1
1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
Carbon tetrachloride	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
2-Hexanone	1.0	U	10	1.0	ug/Kg			11/08/21 21:18	1
Acetone	6.0	U	20	6.0	ug/Kg			11/08/21 21:18	1
Chloroform	0.60	U	5.0	0.60	ug/Kg			11/08/21 21:18	1
Benzene	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
1,1,1-Trichloroethane	0.60	U	5.0	0.60	ug/Kg			11/08/21 21:18	1
Bromomethane	0.70	U	5.0	0.70	ug/Kg			11/08/21 21:18	1
Chloromethane	0.60	U	5.0	0.60	ug/Kg			11/08/21 21:18	1
Bromochloromethane	0.60	U	5.0	0.60	ug/Kg			11/08/21 21:18	1
Chloroethane	1.0	U	5.0	1.0	ug/Kg			11/08/21 21:18	1
Vinyl chloride	0.60	U	5.0	0.60	ug/Kg			11/08/21 21:18	1
Methylene Chloride	2.0	U	5.0	2.0	ug/Kg			11/08/21 21:18	1
Carbon disulfide	0.60	U	5.0	0.60	ug/Kg			11/08/21 21:18	1
Bromoform	5.0	U	10	5.0	ug/Kg			11/08/21 21:18	1
Bromodichloromethane	0.40	U	5.0	0.40	ug/Kg			11/08/21 21:18	1
1,1-Dichloroethane	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
1,1-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
Trichlorofluoromethane	0.70	U	5.0	0.70	ug/Kg			11/08/21 21:18	1
Dichlorodifluoromethane	0.60	U	5.0	0.60	ug/Kg			11/08/21 21:18	1
Freon 113	0.60	U	10	0.60	ug/Kg			11/08/21 21:18	1
1,2-Dichloropropane	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
2-Butanone	2.0	U	10	2.0	ug/Kg			11/08/21 21:18	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
Trichloroethene	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
Methyl acetate	1.0	U	5.0	1.0	ug/Kg			11/08/21 21:18	1
1,1,1,2-Tetrachloroethane	0.40	U	5.0	0.40	ug/Kg			11/08/21 21:18	1
1,2,3-Trichlorobenzene	5.0	U	10	5.0	ug/Kg			11/08/21 21:18	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

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

Lab Sample ID: MB 410-192184/9

Matrix: Solid

Analysis Batch: 192184

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	0.40	U	5.0	0.40	ug/Kg			11/08/21 21:18	1
1,2-Dichlorobenzene	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
1,2-Dibromo-3-Chloropropane	0.50	U	5.0	0.50	ug/Kg			11/08/21 21:18	1
Isopropylbenzene	0.40	U	5.0	0.40	ug/Kg			11/08/21 21:18	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	103		54 - 135		11/08/21 21:18	1
4-Bromofluorobenzene (Surr)	101		50 - 131		11/08/21 21:18	1
Dibromofluoromethane (Surr)	101		50 - 141		11/08/21 21:18	1
Toluene-d8 (Surr)	99		52 - 141		11/08/21 21:18	1

Lab Sample ID: LCS 410-192184/6

Matrix: Solid

Analysis Batch: 192184

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,3-Dichloropropene	20.0	20.7		ug/Kg		104	66 - 120
trans-1,3-Dichloropropene	20.0	21.0		ug/Kg		105	68 - 122
Ethylbenzene	20.0	21.9		ug/Kg		109	78 - 120
Styrene	20.0	21.9		ug/Kg		110	76 - 120
1,4-Dichlorobenzene	20.0	20.5		ug/Kg		103	80 - 120
1,2-Dibromoethane	20.0	20.3		ug/Kg		101	76 - 120
1,2-Dichloroethane	20.0	20.6		ug/Kg		103	71 - 128
4-Methyl-2-pentanone	250	261		ug/Kg		104	67 - 128
Methylcyclohexane	20.0	22.5		ug/Kg		112	61 - 124
Toluene	20.0	21.1		ug/Kg		105	80 - 120
Chlorobenzene	20.0	21.4		ug/Kg		107	80 - 120
Cyclohexane	20.0	22.7		ug/Kg		113	58 - 126
1,2,4-Trichlorobenzene	20.0	17.0		ug/Kg		85	56 - 130
1,4-Dioxane	500	516		ug/Kg		103	62 - 131
Dibromochloromethane	20.0	20.8		ug/Kg		104	69 - 125
Tetrachloroethene	20.0	21.7		ug/Kg		108	73 - 120
cis-1,2-Dichloroethene	20.0	21.6		ug/Kg		108	80 - 125
trans-1,2-Dichloroethene	20.0	20.7		ug/Kg		104	80 - 126
Methyl tertiary butyl ether	20.0	22.2		ug/Kg		111	72 - 120
m&p-Xylene	40.0	43.7		ug/Kg		109	80 - 120
1,3-Dichlorobenzene	20.0	20.2		ug/Kg		101	75 - 120
Carbon tetrachloride	20.0	22.9		ug/Kg		115	64 - 134
2-Hexanone	250	263		ug/Kg		105	54 - 140
Acetone	250	215		ug/Kg		86	41 - 150
Chloroform	20.0	20.5		ug/Kg		102	80 - 120
Benzene	20.0	21.2		ug/Kg		106	80 - 120
1,1,1-Trichloroethane	20.0	21.8		ug/Kg		109	69 - 123
Bromomethane	20.0	20.1		ug/Kg		101	45 - 140
Chloromethane	20.0	21.0		ug/Kg		105	56 - 120
Bromochloromethane	20.0	20.8		ug/Kg		104	72 - 124
Chloroethane	20.0	20.6		ug/Kg		103	43 - 135
Vinyl chloride	20.0	22.1		ug/Kg		110	52 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

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

Lab Sample ID: LCS 410-192184/6

Matrix: Solid

Analysis Batch: 192184

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	21.0		ug/Kg		105	76 - 122
Carbon disulfide	20.0	24.9		ug/Kg		124	64 - 133
Bromoform	20.0	21.6		ug/Kg		108	51 - 127
Bromodichloromethane	20.0	21.5		ug/Kg		107	70 - 120
1,1-Dichloroethane	20.0	20.8		ug/Kg		104	79 - 120
1,1-Dichloroethene	20.0	22.7		ug/Kg		114	73 - 129
Trichlorofluoromethane	20.0	21.4		ug/Kg		107	55 - 134
Dichlorodifluoromethane	20.0	25.8	*+	ug/Kg		129	21 - 127
Freon 113	20.0	25.6		ug/Kg		128	64 - 135
1,2-Dichloropropane	20.0	21.0		ug/Kg		105	80 - 120
2-Butanone	250	219		ug/Kg		87	57 - 128
1,1,2-Trichloroethane	20.0	20.4		ug/Kg		102	80 - 120
Trichloroethene	20.0	21.5		ug/Kg		108	80 - 120
Methyl acetate	20.0	22.2		ug/Kg		111	67 - 128
1,1,1,2-Tetrachloroethane	20.0	21.4		ug/Kg		107	69 - 125
1,2,3-Trichlorobenzene	20.0	17.5		ug/Kg		87	57 - 131
o-Xylene	20.0	22.0		ug/Kg		110	75 - 120
1,2-Dichlorobenzene	20.0	20.7		ug/Kg		104	76 - 120
1,2-Dibromo-3-Chloropropane	20.0	22.1		ug/Kg		110	48 - 134
Isopropylbenzene	20.0	19.9		ug/Kg		100	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		54 - 135
4-Bromofluorobenzene (Surr)	102		50 - 131
Dibromofluoromethane (Surr)	101		50 - 141
Toluene-d8 (Surr)	98		52 - 141

Lab Sample ID: LCSD 410-192184/7

Matrix: Solid

Analysis Batch: 192184

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	20.0	20.8		ug/Kg		104	66 - 120	0	30
trans-1,3-Dichloropropene	20.0	21.0		ug/Kg		105	68 - 122	0	30
Ethylbenzene	20.0	18.5		ug/Kg		92	78 - 120	17	30
Styrene	20.0	19.6		ug/Kg		98	76 - 120	11	30
1,4-Dichlorobenzene	20.0	17.5		ug/Kg		88	80 - 120	16	30
1,2-Dibromoethane	20.0	20.3		ug/Kg		101	76 - 120	0	30
1,2-Dichloroethane	20.0	20.7		ug/Kg		103	71 - 128	0	30
4-Methyl-2-pentanone	250	268		ug/Kg		107	67 - 128	3	30
Methylcyclohexane	20.0	22.0		ug/Kg		110	61 - 124	2	30
Toluene	20.0	19.8		ug/Kg		99	80 - 120	6	30
Chlorobenzene	20.0	19.9		ug/Kg		99	80 - 120	8	30
Cyclohexane	20.0	22.3		ug/Kg		112	58 - 126	2	30
1,2,4-Trichlorobenzene	20.0	14.2		ug/Kg		71	56 - 130	18	30
1,4-Dioxane	500	505		ug/Kg		101	62 - 131	2	30
Dibromochloromethane	20.0	20.9		ug/Kg		105	69 - 125	1	30
Tetrachloroethene	20.0	18.1		ug/Kg		91	73 - 120	18	30

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

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

Lab Sample ID: LCSD 410-192184/7

Matrix: Solid

Analysis Batch: 192184

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Added	Result	Qualifier				Limits		
cis-1,2-Dichloroethene	20.0	21.1		ug/Kg		106	80 - 125	2	30
trans-1,2-Dichloroethene	20.0	20.6		ug/Kg		103	80 - 126	1	30
Methyl tertiary butyl ether	20.0	22.2		ug/Kg		111	72 - 120	0	30
m&p-Xylene	40.0	37.2		ug/Kg		93	80 - 120	16	30
1,3-Dichlorobenzene	20.0	17.2		ug/Kg		86	75 - 120	16	30
Carbon tetrachloride	20.0	21.1		ug/Kg		105	64 - 134	8	30
2-Hexanone	250	272		ug/Kg		109	54 - 140	3	30
Acetone	250	215		ug/Kg		86	41 - 150	0	30
Chloroform	20.0	20.7		ug/Kg		103	80 - 120	1	30
Benzene	20.0	21.1		ug/Kg		105	80 - 120	1	30
1,1,1-Trichloroethane	20.0	21.2		ug/Kg		106	69 - 123	3	30
Bromomethane	20.0	20.0		ug/Kg		100	45 - 140	1	30
Chloromethane	20.0	21.3		ug/Kg		107	56 - 120	2	30
Bromochloromethane	20.0	21.1		ug/Kg		106	72 - 124	1	30
Chloroethane	20.0	20.5		ug/Kg		103	43 - 135	0	30
Vinyl chloride	20.0	21.6		ug/Kg		108	52 - 120	2	30
Methylene Chloride	20.0	20.9		ug/Kg		105	76 - 122	0	30
Carbon disulfide	20.0	24.5		ug/Kg		122	64 - 133	2	30
Bromoform	20.0	21.9		ug/Kg		110	51 - 127	2	30
Bromodichloromethane	20.0	21.5		ug/Kg		108	70 - 120	0	30
1,1-Dichloroethane	20.0	20.7		ug/Kg		103	79 - 120	1	30
1,1-Dichloroethene	20.0	22.4		ug/Kg		112	73 - 129	2	30
Trichlorofluoromethane	20.0	20.9		ug/Kg		105	55 - 134	2	30
Dichlorodifluoromethane	20.0	25.4		ug/Kg		127	21 - 127	2	30
Freon 113	20.0	24.7		ug/Kg		124	64 - 135	3	30
1,2-Dichloropropane	20.0	20.8		ug/Kg		104	80 - 120	1	30
2-Butanone	250	219		ug/Kg		88	57 - 128	0	30
1,1,2-Trichloroethane	20.0	21.0		ug/Kg		105	80 - 120	3	30
Trichloroethene	20.0	21.3		ug/Kg		107	80 - 120	1	30
Methyl acetate	20.0	22.0		ug/Kg		110	67 - 128	1	30
1,1,2,2-Tetrachloroethane	20.0	21.4		ug/Kg		107	69 - 125	0	30
1,2,3-Trichlorobenzene	20.0	14.7		ug/Kg		74	57 - 131	17	30
o-Xylene	20.0	18.6		ug/Kg		93	75 - 120	17	30
1,2-Dichlorobenzene	20.0	17.8		ug/Kg		89	76 - 120	15	30
1,2-Dibromo-3-Chloropropane	20.0	19.9		ug/Kg		100	48 - 134	10	30
Isopropylbenzene	20.0	16.3		ug/Kg		81	77 - 120	20	30

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	103		54 - 135
4-Bromofluorobenzene (Surr)	101		50 - 131
Dibromofluoromethane (Surr)	101		50 - 141
Toluene-d8 (Surr)	98		52 - 141

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

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

Lab Sample ID: MB 410-191838/1-A
Matrix: Solid
Analysis Batch: 192264

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 191838

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1'-Biphenyl	17	U	37	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
1,2,4,5-Tetrachlorobenzene	17	U	37	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
2,2'-oxybis[1-chloropropane]	20	U	43	20	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
2,3,4,6-Tetrachlorophenol	67	U	170	67	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
2,4,5-Trichlorophenol	17	U	37	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
2,4,6-Trichlorophenol	17	U	37	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
2,4-Dichlorophenol	20	U	43	20	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
2,4-Dimethylphenol	17	U	37	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
2,4-Dinitrophenol	170	U	1000	170	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
2,4-Dinitrotoluene	33	U	170	33	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
2,6-Dinitrotoluene	17	U	37	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
2-Chloronaphthalene	13	U	33	13	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
2-Chlorophenol	17	U	37	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
2-Methylnaphthalene	5.0	U	17	5.0	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
2-Methylphenol	20	U	50	20	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
2-Nitroaniline	17	U	50	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
2-Nitrophenol	20	U	50	20	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
3,3'-Dichlorobenzidine	33	U	170	33	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
3-Nitroaniline	33	U	170	33	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
4,6-Dinitro-2-methylphenol	170	U	500	170	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
4-Bromophenyl-phenylether	17	U	37	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
4-Chloro-3-methylphenol	20	U	50	20	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
4-Methylphenol	17	U	50	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
4-Nitroaniline	33	U	170	33	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
4-Nitrophenol	170	U	500	170	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Acenaphthene	3.3	U	17	3.3	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Acenaphthylene	4.0	U	17	4.0	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Acetophenone	17	U	50	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Anthracene	3.3	U	17	3.3	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Atrazine	67	U	170	67	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Benzaldehyde	33	U	170	33	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Benzo[a]anthracene	3.3	U	17	3.3	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Benzo[a]pyrene	3.3	U	17	3.3	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Benzo[b]fluoranthene	3.3	U	17	3.3	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Benzo[g,h,i]perylene	3.3	U	17	3.3	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Benzo[k]fluoranthene	3.3	U	17	3.3	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Bis(2-chloroethoxy)methane	17	U	37	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Bis(2-chloroethyl)ether	17	U	37	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Bis(2-ethylhexyl) phthalate	67	U	170	67	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Butylbenzylphthalate	67	U	170	67	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Caprolactam	33	U	170	33	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Carbazole	17	U	37	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Chrysene	3.3	U	17	3.3	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Di-n-butyl phthalate	67	U	170	67	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Di-n-octyl phthalate	67	U	170	67	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Dibenz(a,h)anthracene	6.7	U	17	6.7	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Dibenzofuran	17	U	37	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Diethyl phthalate	67	U	170	67	ug/Kg		11/08/21 10:38	11/08/21 21:12	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

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

Lab Sample ID: MB 410-191838/1-A

Matrix: Solid

Analysis Batch: 192264

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 191838

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dimethyl phthalate	67	U	170	67	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Fluoranthene	3.3	U	17	3.3	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Fluorene	3.3	U	17	3.3	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Hexachlorobenzene	6.7	U	17	6.7	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Hexachlorobutadiene	20	U	50	20	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Hexachlorocyclopentadiene	170	U	500	170	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Hexachloroethane	33	U	170	33	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Indeno[1,2,3-cd]pyrene	4.0	U	17	4.0	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Isophorone	17	U	67	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
N-Nitrosodi-n-propylamine	33	U	67	33	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
N-Nitrosodiphenylamine	17	U	37	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Naphthalene	6.7	U	17	6.7	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Nitrobenzene	17	U	37	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Phenanthrene	4.0	U	17	4.0	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Phenol	17	U	37	17	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Pyrene	3.3	U	17	3.3	ug/Kg		11/08/21 10:38	11/08/21 21:12	1
Pentachlorophenol	67	U	170	67	ug/Kg		11/08/21 10:38	11/08/21 21:12	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
p-Terphenyl-d14 (Surr)	95		45 - 108	11/08/21 10:38	11/08/21 21:12	1
Nitrobenzene-d5 (Surr)	74		32 - 97	11/08/21 10:38	11/08/21 21:12	1
2-Fluorophenol (Surr)	77		26 - 96	11/08/21 10:38	11/08/21 21:12	1
2-Fluorobiphenyl (Surr)	80		39 - 100	11/08/21 10:38	11/08/21 21:12	1
2,4,6-Tribromophenol (Surr)	74		13 - 121	11/08/21 10:38	11/08/21 21:12	1
Phenol-d5 (Surr)	76		27 - 104	11/08/21 10:38	11/08/21 21:12	1

Lab Sample ID: LCS 410-191838/2-A

Matrix: Solid

Analysis Batch: 192264

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 191838

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	1670	1330		ug/Kg		80	60 - 120
2,2'-oxybis[1-chloropropane]	1670	1150		ug/Kg		69	48 - 120
2,3,4,6-Tetrachlorophenol	1670	1440		ug/Kg		86	59 - 120
2,4,5-Trichlorophenol	1670	1530		ug/Kg		92	61 - 120
2,4,6-Trichlorophenol	1670	1580		ug/Kg		95	59 - 120
2,4-Dichlorophenol	1670	1380		ug/Kg		83	62 - 120
2,4-Dimethylphenol	1670	1420		ug/Kg		85	65 - 120
2,4-Dinitrophenol	3330	3690		ug/Kg		111	44 - 120
2,4-Dinitrotoluene	1670	1530		ug/Kg		92	68 - 120
2,6-Dinitrotoluene	1670	1520		ug/Kg		91	67 - 120
2-Chloronaphthalene	1670	1370		ug/Kg		82	61 - 120
2-Chlorophenol	1670	1250		ug/Kg		75	59 - 120
2-Methylnaphthalene	1670	1280		ug/Kg		77	63 - 120
2-Methylphenol	1670	1370		ug/Kg		82	63 - 120
2-Nitroaniline	1670	1520		ug/Kg		91	64 - 120
2-Nitrophenol	1670	1360		ug/Kg		82	55 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

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

Lab Sample ID: LCS 410-191838/2-A

Matrix: Solid

Analysis Batch: 192264

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 191838

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
3,3'-Dichlorobenzidine	3330	2270		ug/Kg		68	19 - 120
3-Nitroaniline	1670	1210		ug/Kg		73	31 - 120
4,6-Dinitro-2-methylphenol	3330	4120	*+	ug/Kg		124	59 - 120
4-Bromophenyl-phenylether	1670	1430		ug/Kg		86	65 - 120
4-Chloro-3-methylphenol	1670	1390		ug/Kg		84	67 - 120
4-Methylphenol	1670	1210		ug/Kg		72	56 - 120
4-Nitroaniline	1670	1420		ug/Kg		85	59 - 120
4-Nitrophenol	3330	3350		ug/Kg		100	58 - 120
Acenaphthene	1670	1350		ug/Kg		81	61 - 120
Acenaphthylene	1670	1440		ug/Kg		86	69 - 120
Acetophenone	1670	1190		ug/Kg		71	54 - 120
Anthracene	1670	1450		ug/Kg		87	75 - 120
Atrazine	1670	1430		ug/Kg		86	63 - 127
Benzaldehyde	1670	989		ug/Kg		59	25 - 120
Benzo[a]anthracene	1670	1570		ug/Kg		94	73 - 120
Benzo[a]pyrene	1670	1450		ug/Kg		87	80 - 123
Benzo[b]fluoranthene	1670	1470		ug/Kg		88	63 - 120
Benzo[g,h,i]perylene	1670	1470		ug/Kg		88	77 - 120
Benzo[k]fluoranthene	1670	1620		ug/Kg		97	68 - 120
Bis(2-chloroethoxy)methane	1670	1320		ug/Kg		79	55 - 120
Bis(2-chloroethyl)ether	1670	1190		ug/Kg		71	49 - 120
Bis(2-ethylhexyl) phthalate	1670	1620		ug/Kg		97	65 - 120
Butylbenzylphthalate	1670	1570		ug/Kg		94	66 - 120
Caprolactam	1670	1360		ug/Kg		81	54 - 120
Carbazole	1670	1490		ug/Kg		90	74 - 120
Chrysene	1670	1430		ug/Kg		86	66 - 120
Di-n-butyl phthalate	1670	1550		ug/Kg		93	65 - 120
Di-n-octyl phthalate	1670	1750		ug/Kg		105	60 - 125
Dibenz(a,h)anthracene	1670	1490		ug/Kg		89	72 - 120
Dibenzofuran	1670	1500		ug/Kg		90	68 - 120
Diethyl phthalate	1670	1470		ug/Kg		88	65 - 120
Dimethyl phthalate	1670	1440		ug/Kg		86	67 - 120
Fluoranthene	1670	1440		ug/Kg		87	71 - 120
Fluorene	1670	1420		ug/Kg		85	68 - 120
Hexachlorobenzene	1670	1410		ug/Kg		85	58 - 120
Hexachlorobutadiene	1670	1310		ug/Kg		79	48 - 120
Hexachlorocyclopentadiene	1670	1380		ug/Kg		83	43 - 120
Hexachloroethane	1670	1160		ug/Kg		69	48 - 120
Indeno[1,2,3-cd]pyrene	1670	1430		ug/Kg		86	71 - 122
Isophorone	1670	1300		ug/Kg		78	62 - 120
N-Nitrosodi-n-propylamine	1670	1180		ug/Kg		71	55 - 120
N-Nitrosodiphenylamine	1420	1300		ug/Kg		92	71 - 120
Naphthalene	1670	1220		ug/Kg		73	60 - 120
Nitrobenzene	1670	1220		ug/Kg		73	56 - 120
Phenanthrene	1670	1500		ug/Kg		90	74 - 120
Phenol	1670	1320		ug/Kg		79	57 - 120
Pyrene	1670	1550		ug/Kg		93	70 - 120
Pentachlorophenol	3330	3130		ug/Kg		94	41 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

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

Lab Sample ID: LCS 410-191838/2-A
Matrix: Solid
Analysis Batch: 192264

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 191838

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
<i>p</i> -Terphenyl-d14 (Surr)	98		45 - 108
Nitrobenzene-d5 (Surr)	74		32 - 97
2-Fluorophenol (Surr)	75		26 - 96
2-Fluorobiphenyl (Surr)	83		39 - 100
2,4,6-Tribromophenol (Surr)	85		13 - 121
Phenol-d5 (Surr)	78		27 - 104

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-195125/1-A
Matrix: Solid
Analysis Batch: 195646

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 195125

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin (1C)	0.17	U	0.83	0.17	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
alpha-BHC (1C)	0.17	U	0.83	0.17	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
alpha-Chlordane (1C)	0.17	U	0.83	0.17	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
beta-BHC (1C)	0.44	U	1.0	0.44	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
delta-BHC (1C)	0.45	U	1.0	0.45	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
Dieldrin (1C)	0.33	U	1.7	0.33	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
Endosulfan I (1C)	0.22	U	0.83	0.22	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
Endosulfan II (1C)	1.1	U	2.3	1.1	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
Endosulfan sulfate (1C)	0.33	U	1.7	0.33	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
Endrin (1C)	0.68	U	1.7	0.68	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
Endrin aldehyde (1C)	0.33	U	1.7	0.33	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
Endrin ketone (1C)	0.60	U	2.0	0.60	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
gamma-BHC (Lindane) (1C)	0.21	U	0.83	0.21	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
gamma-Chlordane (1C)	0.25	U	0.83	0.25	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
Heptachlor (1C)	0.31	U	0.83	0.31	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
Heptachlor epoxide (1C)	0.17	U	0.83	0.17	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
Methoxychlor (1C)	1.8	U	6.7	1.8	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
Toxaphene (2C)	14	U	33	14	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
p,p'-DDD (1C)	0.33	U	1.7	0.33	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
p,p'-DDE (1C)	0.33	U	1.7	0.33	ug/Kg		11/16/21 10:06	11/17/21 06:51	1
p,p'-DDT (1C)	0.79	U	1.7	0.79	ug/Kg		11/16/21 10:06	11/17/21 06:51	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	90		54 - 143	11/16/21 10:06	11/17/21 06:51	1
DCB Decachlorobiphenyl (Surr) (2C)	108		54 - 143	11/16/21 10:06	11/17/21 06:51	1
Tetrachloro-m-xylene (Surr) (1C)	66		20 - 131	11/16/21 10:06	11/17/21 06:51	1
Tetrachloro-m-xylene (Surr) (2C)	69		20 - 131	11/16/21 10:06	11/17/21 06:51	1

Lab Sample ID: LCS 410-195125/2-A
Matrix: Solid
Analysis Batch: 195646

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 195125

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Aldrin (2C)	3.38	2.96		ug/Kg		88	56 - 134

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

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

Lab Sample ID: LCS 410-195125/2-A

Matrix: Solid

Analysis Batch: 195646

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 195125

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha-BHC (2C)	3.38	3.00		ug/Kg		89	55 - 135
beta-BHC (2C)	3.33	2.77		ug/Kg		83	50 - 132
delta-BHC (2C)	3.33	3.01		ug/Kg		90	47 - 141
Dieldrin (2C)	6.67	6.39		ug/Kg		96	54 - 136
Endosulfan I (2C)	3.38	2.84		ug/Kg		84	51 - 124
Endosulfan II (2C)	6.71	6.36		ug/Kg		95	56 - 125
Endosulfan sulfate (2C)	6.71	6.05		ug/Kg		90	56 - 125
Endrin (2C)	6.67	6.41		ug/Kg		96	56 - 129
Endrin aldehyde (2C)	6.71	5.54		ug/Kg		83	46 - 133
Endrin ketone (2C)	6.67	6.15		ug/Kg		92	55 - 128
gamma-BHC (Lindane) (2C)	3.33	2.87		ug/Kg		86	52 - 138
Heptachlor (2C)	3.38	2.87		ug/Kg		85	52 - 139
Heptachlor epoxide (2C)	3.33	3.04		ug/Kg		91	55 - 133
Methoxychlor (2C)	33.6	32.6		ug/Kg		97	54 - 148
p,p'-DDD (2C)	6.71	6.58		ug/Kg		98	59 - 135
p,p'-DDE (2C)	6.71	6.44		ug/Kg		96	57 - 135
p,p'-DDT (2C)	6.71	6.26		ug/Kg		93	53 - 151

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr) (1C)	83		54 - 143
DCB Decachlorobiphenyl (Surr) (2C)	94		54 - 143
Tetrachloro-m-xylene (Surr) (1C)	45		20 - 131
Tetrachloro-m-xylene (Surr) (2C)	47		20 - 131

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

Lab Sample ID: MB 410-194673/1-A

Matrix: Solid

Analysis Batch: 195347

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 194673

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016 (2C)	5.3	U	17	5.3	ug/Kg		11/15/21 10:27	11/16/21 08:13	1
PCB-1221 (2C)	5.3	U	17	5.3	ug/Kg		11/15/21 10:27	11/16/21 08:13	1
PCB-1232 (2C)	5.3	U	17	5.3	ug/Kg		11/15/21 10:27	11/16/21 08:13	1
PCB-1242 (2C)	5.3	U	17	5.3	ug/Kg		11/15/21 10:27	11/16/21 08:13	1
PCB-1248 (2C)	5.3	U	17	5.3	ug/Kg		11/15/21 10:27	11/16/21 08:13	1
PCB-1254 (2C)	6.4	U	17	6.4	ug/Kg		11/15/21 10:27	11/16/21 08:13	1
PCB-1260 (2C)	6.4	U	17	6.4	ug/Kg		11/15/21 10:27	11/16/21 08:13	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	132		45 - 143	11/15/21 10:27	11/16/21 08:13	1
DCB Decachlorobiphenyl (Surr) (2C)	118		45 - 143	11/15/21 10:27	11/16/21 08:13	1
Tetrachloro-m-xylene (1C)	123		53 - 140	11/15/21 10:27	11/16/21 08:13	1
Tetrachloro-m-xylene (2C)	107		53 - 140	11/15/21 10:27	11/16/21 08:13	1

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

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

Lab Sample ID: LCS 410-194673/2-A
Matrix: Solid
Analysis Batch: 195347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 194673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016 (2C)	167	128		ug/Kg		77	68 - 121
PCB-1260 (2C)	168	151		ug/Kg		90	75 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	113		45 - 143
DCB Decachlorobiphenyl (Surr) (2C)	107		45 - 143
Tetrachloro-m-xylene (1C)	109		53 - 140
Tetrachloro-m-xylene (2C)	97		53 - 140

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-191715/1-A
Matrix: Solid
Analysis Batch: 193926

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 191715

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.7	U	5.0	1.7	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Aluminum	11	U ^5-	20	11	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Barium	0.15	U	0.50	0.15	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Beryllium	0.10	U	0.50	0.10	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Cadmium	0.10	U	0.50	0.10	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Calcium	12	U	50	12	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Chromium	0.18	U	1.5	0.18	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Cobalt	0.15	U	0.50	0.15	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Copper	0.77	U	2.0	0.77	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Lead	0.60	U	1.5	0.60	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Magnesium	4.0	U	10	4.0	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Manganese	0.52	U	1.0	0.52	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Nickel	0.26	U	1.0	0.26	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Potassium	20	U	50	20	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Selenium	1.5	U	5.0	1.5	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Silver	0.40	U ^5-	1.0	0.40	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Sodium	46	U	100	46	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Thallium	1.3	U	3.0	1.3	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Zinc	1.0	U	2.0	1.0	mg/Kg		11/07/21 08:16	11/11/21 22:50	1
Vanadium	0.43	U	1.0	0.43	mg/Kg		11/07/21 08:16	11/11/21 22:50	1

Lab Sample ID: LCS 410-191715/2-A
Matrix: Solid
Analysis Batch: 193926

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 191715

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	10.0	9.79		mg/Kg		98	80 - 120
Aluminum	500	536	^5-	mg/Kg		107	80 - 120
Barium	50.0	51.7		mg/Kg		103	80 - 120
Beryllium	4.99	5.06		mg/Kg		101	80 - 120
Cadmium	5.00	5.16		mg/Kg		103	80 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

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

Lab Sample ID: LCS 410-191715/2-A

Matrix: Solid

Analysis Batch: 193926

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 191715

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Calcium	500	510		mg/Kg		102	80 - 120
Chromium	50.0	52.0		mg/Kg		104	80 - 120
Cobalt	50.0	52.8		mg/Kg		106	80 - 120
Copper	50.0	51.4		mg/Kg		103	80 - 120
Lead	5.00	5.07		mg/Kg		101	80 - 120
Magnesium	500	510		mg/Kg		102	80 - 120
Manganese	50.0	51.4		mg/Kg		103	80 - 120
Nickel	50.0	54.0		mg/Kg		108	80 - 120
Potassium	500	512		mg/Kg		102	80 - 120
Selenium	10.0	10.9		mg/Kg		109	80 - 120
Silver	4.99	5.15	^5-	mg/Kg		103	80 - 120
Sodium	500	510		mg/Kg		102	80 - 120
Thallium	10.0	11.4		mg/Kg		114	80 - 120
Zinc	50.0	49.4		mg/Kg		99	80 - 120
Vanadium	50.0	50.2		mg/Kg		100	80 - 120

Lab Sample ID: LCSD 410-191715/3-A

Matrix: Solid

Analysis Batch: 193926

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 191715

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits	RPD	
		Result	Qualifier					RPD	Limit
Antimony	10.0	9.86		mg/Kg		99	80 - 120	1	20
Aluminum	500	535	^5-	mg/Kg		107	80 - 120	0	20
Barium	50.0	51.5		mg/Kg		103	80 - 120	0	20
Beryllium	4.99	5.05		mg/Kg		101	80 - 120	0	20
Cadmium	5.00	5.17		mg/Kg		104	80 - 120	0	20
Calcium	500	514		mg/Kg		103	80 - 120	1	20
Chromium	50.0	51.7		mg/Kg		104	80 - 120	1	20
Cobalt	50.0	52.3		mg/Kg		105	80 - 120	1	20
Copper	50.0	51.1		mg/Kg		102	80 - 120	1	20
Lead	5.00	5.02		mg/Kg		100	80 - 120	1	20
Magnesium	500	508		mg/Kg		102	80 - 120	0	20
Manganese	50.0	51.0		mg/Kg		102	80 - 120	1	20
Nickel	50.0	53.7		mg/Kg		107	80 - 120	1	20
Potassium	500	509		mg/Kg		102	80 - 120	1	20
Selenium	10.0	10.1		mg/Kg		101	80 - 120	7	20
Silver	4.99	5.18	^5-	mg/Kg		104	80 - 120	1	20
Sodium	500	513		mg/Kg		103	80 - 120	0	20
Thallium	10.0	11.3		mg/Kg		113	80 - 120	0	20
Zinc	50.0	49.1		mg/Kg		98	80 - 120	1	20
Vanadium	50.0	50.1		mg/Kg		100	80 - 120	0	20

QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-192047/1-A
Matrix: Solid
Analysis Batch: 193234

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 192047

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	U	0.036	0.015	mg/Kg		11/08/21 12:38	11/10/21 15:27	1

Lab Sample ID: LCS 410-192047/2-A
Matrix: Solid
Analysis Batch: 193234

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 192047

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.100	0.103		mg/Kg		103	80 - 120

Lab Sample ID: LCSD 410-192047/3-A
Matrix: Solid
Analysis Batch: 193234

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 192047

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.100	0.101		mg/Kg		101	80 - 120	2	20

DRAFT

- 1
- 2
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- 15

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

GC/MS VOA

Prep Batch: 191561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62150-1	BH-15 (5.5-6.0)	Total/NA	Solid	5035	

Analysis Batch: 192184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62150-1	BH-15 (5.5-6.0)	Total/NA	Solid	8260C	191561
MB 410-192184/9	Method Blank	Total/NA	Solid	8260C	
LCS 410-192184/6	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-192184/7	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 191838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62150-1	BH-15 (5.5-6.0)	Total/NA	Solid	3546	
MB 410-191838/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-191838/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 192264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-191838/1-A	Method Blank	Total/NA	Solid	8270D	191838
LCS 410-191838/2-A	Lab Control Sample	Total/NA	Solid	8270D	191838

Analysis Batch: 193914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62150-1	BH-15 (5.5-6.0)	Total/NA	Solid	8270D	191838

GC Semi VOA

Prep Batch: 194673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62150-1	BH-15 (5.5-6.0)	Total/NA	Solid	3546	
MB 410-194673/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-194673/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 195125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62150-1	BH-15 (5.5-6.0)	Total/NA	Solid	3546	
MB 410-195125/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-195125/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 195347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62150-1	BH-15 (5.5-6.0)	Total/NA	Solid	8082A	194673
MB 410-194673/1-A	Method Blank	Total/NA	Solid	8082A	194673
LCS 410-194673/2-A	Lab Control Sample	Total/NA	Solid	8082A	194673

Analysis Batch: 195646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62150-1	BH-15 (5.5-6.0)	Total/NA	Solid	8081B	195125
MB 410-195125/1-A	Method Blank	Total/NA	Solid	8081B	195125
LCS 410-195125/2-A	Lab Control Sample	Total/NA	Solid	8081B	195125

QC Association Summary

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

Metals

Prep Batch: 191715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62150-1	BH-15 (5.5-6.0)	Total/NA	Solid	3050B	
MB 410-191715/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-191715/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 410-191715/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	

Prep Batch: 192047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62150-1	BH-15 (5.5-6.0)	Total/NA	Solid	7471B	
MB 410-192047/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-192047/2-A	Lab Control Sample	Total/NA	Solid	7471B	
LCSD 410-192047/3-A	Lab Control Sample Dup	Total/NA	Solid	7471B	

Analysis Batch: 193234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62150-1	BH-15 (5.5-6.0)	Total/NA	Solid	7471B	192047
MB 410-192047/1-A	Method Blank	Total/NA	Solid	7471B	192047
LCS 410-192047/2-A	Lab Control Sample	Total/NA	Solid	7471B	192047
LCSD 410-192047/3-A	Lab Control Sample Dup	Total/NA	Solid	7471B	192047

Analysis Batch: 193926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62150-1	BH-15 (5.5-6.0)	Total/NA	Solid	6010D	191715
MB 410-191715/1-A	Method Blank	Total/NA	Solid	6010D	191715
LCS 410-191715/2-A	Lab Control Sample	Total/NA	Solid	6010D	191715
LCSD 410-191715/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	191715

Analysis Batch: 194943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62150-1	BH-15 (5.5-6.0)	Total/NA	Solid	6010D	191715
410-62150-1	BH-15 (5.5-6.0)	Total/NA	Solid	6010D	191715

General Chemistry

Analysis Batch: 191929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62150-1	BH-15 (5.5-6.0)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

Client Sample ID: BH-15 (5.5-6.0)

Lab Sample ID: 410-62150-1

Date Collected: 11/04/21 09:55

Matrix: Solid

Date Received: 11/05/21 11:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	191929	11/08/21 09:11	UWC1	ELLE

Client Sample ID: BH-15 (5.5-6.0)

Lab Sample ID: 410-62150-1

Date Collected: 11/04/21 09:55

Matrix: Solid

Date Received: 11/05/21 11:08

Percent Solids: 75.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			191561	11/05/21 23:06	UK3O	ELLE
Total/NA	Analysis	8260C		1	192184	11/09/21 01:07	FXN6	ELLE
Total/NA	Prep	3546			191838	11/08/21 10:38	QTH7	ELLE
Total/NA	Analysis	8270D		1	193914	11/12/21 01:26	DZ6A	ELLE
Total/NA	Prep	3546			195125	11/16/21 10:06	H2LC	ELLE
Total/NA	Analysis	8081B		1	195646	11/17/21 09:01	UAMZ	ELLE
Total/NA	Prep	3546			194673	11/15/21 10:27	H2LC	ELLE
Total/NA	Analysis	8082A		1	195347	11/16/21 09:18	JC94	ELLE
Total/NA	Prep	3050B			191715	11/07/21 08:16	UJLA	ELLE
Total/NA	Analysis	6010D		1	193926	11/11/21 23:44	UCIG	ELLE
Total/NA	Prep	3050B			191715	11/07/21 08:16	UJLA	ELLE
Total/NA	Analysis	6010D		1	194943	11/15/21 15:46	WJM9	ELLE
Total/NA	Prep	3050B			191715	11/07/21 08:16	UJLA	ELLE
Total/NA	Analysis	6010D		5	194943	11/15/21 15:50	WJM9	ELLE
Total/NA	Prep	7471B			192047	11/08/21 12:38	UJLA	ELLE
Total/NA	Analysis	7471B		1	193234	11/10/21 15:47	UEFS	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22

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
8260C	5035	Solid	m&p-Xylene
8260C	5035	Solid	o-Xylene
Moisture		Solid	Percent Moisture

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Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
6010D	Metals (ICP)	SW846	ELLE
7471B	Mercury (CVAA)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
7471B	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-62150-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-62150-1	BH-15 (5.5-6.0)	Solid	11/04/21 09:55	11/05/21 11:08

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Baltimore #201

Chain of Custody Record

552165



Environment Testing
TestAmerica

Ad 410-62150 Chain of Custody

Regulatory Program: DW NPDES RCRA Other: **VADEP**

TAL-8210

Client Contact		Project Manager: Ashley Sweeney		Site Contact:		Date: 11/4/21		COC No:	
Company Name: Roux Associates		Tel/Email: ASWEENEY@rouxinc.com		Lab Contact:		Carrier:		1 of 1 COCs	
Address: 402 Heron Drive		Analysis Turnaround Time							
City/State/Zip: Lorton Twp, NJ 08085		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS							
Phone: 856-423-9800		TAT if different from Below _____							
Fax:		<input checked="" type="checkbox"/> 2 weeks							
Project Name: Mueser-Alexandria		<input type="checkbox"/> 1 week							
Site: Alexandria, VA		<input type="checkbox"/> 2 days							
PO #		<input type="checkbox"/> 1 day							
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Sample Specific Notes:	
BH-15 (5.5-6.0)	11/4/21	955	G	Soil	6			TCL VOCs TCL SVOCs Pesticides TAL Metals PCBS Mercury	X X X X X X
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other									
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown						<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months			
Special Instructions/QC Requirements & Comments:									
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: 4.4 Corr'd: 4.7		Therm ID No.:			
Relinquished by: Muehler		Company: Roux		Date/Time: 11/4/21 12:45		Received by: JH		Company: BABAR	
Relinquished by: SO		Company: 11/4/21 17.00		Date/Time: 11/4/21 17.00		Received by:		Company: ELUE	
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company: ELUE	

KB

11/19/2021 **JA**

Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-62150-1

Login Number: 62150

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Bauer, Kelly

Question	Answer	Comment
The cooler's custody seal is intact.	True	
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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-62737-1
Client Project/Site: Mueser - Alexandria

For:

Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
11/22/2021 9:17:42 PM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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A handwritten signature in cursive script that reads "Kelly Tessier".

Kelly Tessier
Project Manager
11/22/2021 9:17:42 PM



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Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
H3	Sample was received and analyzed past holding time.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

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
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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
PQL	Practical Quantitation Limit

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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

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Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

Job ID: 410-62737-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-62737-1

Receipt

The sample was received on 11/10/2021 10:49 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.9°C

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

The following sample was received outside of holding time: BH-04 (9.0-9.5) (410-62737-1).

GC/MS VOA

Method 8260C: The following sample was received outside of holding time: BH-04 (9.0-9.5) (410-62737-1).

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-194072 recovered above the upper control limit for 1,4-Dioxane, Carbon tetrachloride and Chlorodibromomethane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: BH-04 (9.0-9.5) (410-62737-1). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA

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

PCBs

Method 8082A: The continuing calibration verification (CCV) associated with batch 410-196799 recovered above the upper control limit for DCB Decachlorobiphenyl (Surr) on one column. Results are confirmed on both columns and reported from the passing column. BH-04 (9.0-9.5) (410-62737-1).

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

Pesticides

Method 8081B: Surrogate recovery for the following sample was outside control limits: BH-04 (9.0-9.5) (410-62737-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8081B: The following sample was diluted due to the nature of the sample matrix: BH-04 (9.0-9.5) (410-62737-1). Elevated reporting limits (RLs) are provided.

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

Metals

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.

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

Client Sample ID: BH-04 (9.0-9.5)

Lab Sample ID: 410-62737-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Methyl acetate	1300	H H3	1000	200	ug/Kg	50	*	*	8260C	Total/NA
1,1'-Biphenyl	230		90	41	ug/Kg	1	*	*	8270D	Total/NA
2-Methylnaphthalene	1700		41	12	ug/Kg	1	*	*	8270D	Total/NA
4-Methylphenol	160		120	41	ug/Kg	1	*	*	8270D	Total/NA
Acenaphthene	450		41	8.2	ug/Kg	1	*	*	8270D	Total/NA
Anthracene	350		41	8.2	ug/Kg	1	*	*	8270D	Total/NA
Benzo[a]anthracene	310		41	8.2	ug/Kg	1	*	*	8270D	Total/NA
Benzo[a]pyrene	290		41	8.2	ug/Kg	1	*	*	8270D	Total/NA
Benzo[b]fluoranthene	310		41	8.2	ug/Kg	1	*	*	8270D	Total/NA
Benzo[g,h,i]perylene	190		41	8.2	ug/Kg	1	*	*	8270D	Total/NA
Benzo[k]fluoranthene	130		41	8.2	ug/Kg	1	*	*	8270D	Total/NA
Chrysene	350		41	8.2	ug/Kg	1	*	*	8270D	Total/NA
Dibenz(a,h)anthracene	50		41	16	ug/Kg	1	*	*	8270D	Total/NA
Dibenzofuran	290		90	41	ug/Kg	1	*	*	8270D	Total/NA
Fluoranthene	480		41	8.2	ug/Kg	1	*	*	8270D	Total/NA
Fluorene	490		41	8.2	ug/Kg	1	*	*	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	150		41	9.8	ug/Kg	1	*	*	8270D	Total/NA
Naphthalene	320		41	16	ug/Kg	1	*	*	8270D	Total/NA
Phenanthrene	1700		41	9.8	ug/Kg	1	*	*	8270D	Total/NA
Pyrene	630		41	8.2	ug/Kg	1	*	*	8270D	Total/NA
alpha-BHC (1C)	6.0	J p	20	4.2	ug/Kg	10	*	*	8081B	Total/NA
delta-BHC (2C)	14	J p	24	11	ug/Kg	10	*	*	8081B	Total/NA
Endosulfan I (1C)	14	J p	20	5.4	ug/Kg	10	*	*	8081B	Total/NA
gamma-Chlordane (2C)	18	J	20	6.1	ug/Kg	10	*	*	8081B	Total/NA
Heptachlor (1C)	25	p	20	7.6	ug/Kg	10	*	*	8081B	Total/NA
p,p'-DDE (2C)	14	J p	42	8.1	ug/Kg	10	*	*	8081B	Total/NA
PCB-1248 (2C)	26	J	42	13	ug/Kg	1	*	*	8082A	Total/NA
PCB-1254 (2C)	19	J p	42	16	ug/Kg	1	*	*	8082A	Total/NA
PCB-1260 (2C)	22	J	42	16	ug/Kg	1	*	*	8082A	Total/NA
Aluminum	20000		46	24	mg/Kg	1	*	*	6010D	Total/NA
Arsenic	6.8	J	6.9	3.2	mg/Kg	1	*	*	6010D	Total/NA
Barium	100	B	1.2	0.35	mg/Kg	1	*	*	6010D	Total/NA
Beryllium	0.94	J	1.2	0.23	mg/Kg	1	*	*	6010D	Total/NA
Calcium	79000		120	28	mg/Kg	1	*	*	6010D	Total/NA
Chromium	33		3.5	0.41	mg/Kg	1	*	*	6010D	Total/NA
Cobalt	25		1.2	0.34	mg/Kg	1	*	*	6010D	Total/NA
Copper	39		4.6	1.8	mg/Kg	1	*	*	6010D	Total/NA
Iron	31000		46	14	mg/Kg	1	*	*	6010D	Total/NA
Lead	42		3.5	1.4	mg/Kg	1	*	*	6010D	Total/NA
Magnesium	7200	^2	23	9.2	mg/Kg	1	*	*	6010D	Total/NA
Manganese	480		2.3	1.2	mg/Kg	1	*	*	6010D	Total/NA
Nickel	27		2.3	0.60	mg/Kg	1	*	*	6010D	Total/NA
Potassium	1000		120	47	mg/Kg	1	*	*	6010D	Total/NA
Silver	0.93	J ^5-	2.3	0.92	mg/Kg	1	*	*	6010D	Total/NA
Sodium	160	J	230	110	mg/Kg	1	*	*	6010D	Total/NA
Zinc	110		4.6	2.3	mg/Kg	1	*	*	6010D	Total/NA
Vanadium	36		2.3	0.99	mg/Kg	1	*	*	6010D	Total/NA
Mercury	0.38		0.14	0.058	mg/Kg	1	*	*	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

Client Sample ID: BH-04 (9.0-9.5)

Lab Sample ID: 410-62737-1

Date Collected: 11/08/21 07:40

Matrix: Solid

Date Received: 11/10/21 10:49

Percent Solids: 40.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	82	U H H3	1000	82	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
trans-1,3-Dichloropropene	100	U H H3	1000	100	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Ethylbenzene	82	U H H3	1000	82	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Styrene	82	U H H3	1000	82	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
1,4-Dichlorobenzene	82	U H H3	1000	82	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
1,2-Dibromoethane	82	U H H3	1000	82	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
1,2-Dichloroethane	120	U H H3	1000	120	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
4-Methyl-2-pentanone	200	U H H3	2000	200	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Methylcyclohexane	120	U H H3	1000	120	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Toluene	120	U H H3	1000	120	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Chlorobenzene	100	U H H3	1000	100	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Cyclohexane	100	U H H3	1000	100	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
1,2,4-Trichlorobenzene	1000	U H H3	2000	1000	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
1,4-Dioxane	7600	U H H3	51000	7600	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Dibromochloromethane	410	U H H3	1000	410	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Tetrachloroethene	100	U H H3	1000	100	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
cis-1,2-Dichloroethene	100	U H H3	1000	100	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
trans-1,2-Dichloroethene	100	U H H3	1000	100	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Methyl tertiary butyl ether	100	U H H3	1000	100	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
m&p-Xylene	200	U H H3	1000	200	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
1,3-Dichlorobenzene	100	U H H3	1000	100	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Carbon tetrachloride	410	U H H3	1000	410	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
2-Hexanone	200	U H H3	2000	200	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Acetone	1200	U H H3	4100	1200	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Chloroform	120	U H H3	1000	120	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Benzene	100	U H H3	1000	100	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
1,1,1-Trichloroethane	120	U H H3	1000	120	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Bromomethane	140	U H H3	1000	140	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Chloromethane	120	U H H3	1000	120	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Bromochloromethane	120	U H H3	1000	120	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Chloroethane	200	U H H3	1000	200	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Vinyl chloride	120	U H H3	1000	120	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Methylene Chloride	410	U H H3	1000	410	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Carbon disulfide	120	U H H3	1000	120	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Bromoform	1000	U H H3	2000	1000	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Bromodichloromethane	82	U H H3	1000	82	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
1,1-Dichloroethane	100	U H H3	1000	100	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
1,1-Dichloroethene	100	U H H3	1000	100	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Trichlorofluoromethane	140	U H H3	1000	140	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Dichlorodifluoromethane	120	U H H3	1000	120	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Freon 113	120	U H H3	2000	120	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
1,2-Dichloropropane	100	U H H3	1000	100	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
2-Butanone	410	U H H3	2000	410	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
1,1,2-Trichloroethane	100	U H H3	1000	100	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Trichloroethene	100	U H H3	1000	100	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Methyl acetate	1300	H H3	1000	200	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
1,1,2,2-Tetrachloroethane	82	U H H3	1000	82	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
1,2,3-Trichlorobenzene	1000	U H H3	2000	1000	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
o-Xylene	82	U H H3	1000	82	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

Client Sample ID: BH-04 (9.0-9.5)

Lab Sample ID: 410-62737-1

Date Collected: 11/08/21 07:40

Matrix: Solid

Date Received: 11/10/21 10:49

Percent Solids: 40.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	100	U H H3	1000	100	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
1,2-Dibromo-3-Chloropropane	200	U H H3	1000	200	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Isopropylbenzene	82	U H H3	1000	82	ug/Kg	☼	11/10/21 14:24	11/12/21 16:08	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	129		54 - 135				11/10/21 14:24	11/12/21 16:08	50
4-Bromofluorobenzene (Surr)	123		50 - 131				11/10/21 14:24	11/12/21 16:08	50
Dibromofluoromethane (Surr)	101		50 - 141				11/10/21 14:24	11/12/21 16:08	50
Toluene-d8 (Surr)	121		52 - 141				11/10/21 14:24	11/12/21 16:08	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	230		90	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
1,2,4,5-Tetrachlorobenzene	41	U	90	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
2,2'-oxybis[1-chloropropane]	49	U	110	49	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
2,3,4,6-Tetrachlorophenol	160	U	410	160	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
2,4,5-Trichlorophenol	41	U	90	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
2,4,6-Trichlorophenol	41	U	90	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
2,4-Dichlorophenol	49	U	110	49	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
2,4-Dimethylphenol	41	U	90	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
2,4-Dinitrophenol	410	U	2500	410	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
2,4-Dinitrotoluene	82	U	410	82	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
2,6-Dinitrotoluene	41	U	90	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
2-Chloronaphthalene	33	U	82	33	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
2-Chlorophenol	41	U	90	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
2-Methylnaphthalene	1700		41	12	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
2-Methylphenol	49	U	120	49	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
2-Nitroaniline	41	U	120	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
2-Nitrophenol	49	U	120	49	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
3,3'-Dichlorobenzidine	82	U	410	82	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
3-Nitroaniline	82	U	410	82	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
4,6-Dinitro-2-methylphenol	410	U	1200	410	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
4-Bromophenyl-phenylether	41	U	90	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
4-Chloro-3-methylphenol	49	U	120	49	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
4-Methylphenol	160		120	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
4-Nitroaniline	82	U	410	82	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
4-Nitrophenol	410	U	1200	410	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Acenaphthene	450		41	8.2	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Acenaphthylene	9.8	U	41	9.8	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Acetophenone	41	U	120	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Anthracene	350		41	8.2	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Atrazine	160	U	410	160	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Benzaldehyde	82	U	410	82	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Benzo[a]anthracene	310		41	8.2	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Benzo[a]pyrene	290		41	8.2	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Benzo[b]fluoranthene	310		41	8.2	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Benzo[g,h,i]perylene	190		41	8.2	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Benzo[k]fluoranthene	130		41	8.2	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Bis(2-chloroethoxy)methane	41	U	90	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Bis(2-chloroethyl)ether	41	U	90	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

Client Sample ID: BH-04 (9.0-9.5)

Lab Sample ID: 410-62737-1

Date Collected: 11/08/21 07:40

Matrix: Solid

Date Received: 11/10/21 10:49

Percent Solids: 40.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	160	U	410	160	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Butylbenzylphthalate	160	U	410	160	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Caprolactam	82	U	410	82	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Carbazole	41	U	90	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Chrysene	350		41	8.2	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Di-n-butyl phthalate	160	U	410	160	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Di-n-octyl phthalate	160	U	410	160	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Dibenz(a,h)anthracene	50		41	16	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Dibenzofuran	290		90	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Diethyl phthalate	160	U	410	160	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Dimethyl phthalate	160	U	410	160	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Fluoranthene	480		41	8.2	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Fluorene	490		41	8.2	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Hexachlorobenzene	16	U	41	16	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Hexachlorobutadiene	49	U	120	49	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Hexachlorocyclopentadiene	410	U	1200	410	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Hexachloroethane	82	U	410	82	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Indeno[1,2,3-cd]pyrene	150		41	9.8	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Isophorone	41	U	160	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
N-Nitrosodi-n-propylamine	82	U	160	82	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
N-Nitrosodiphenylamine	41	U	90	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Naphthalene	320		41	16	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Nitrobenzene	41	U	90	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Phenanthrene	1700		41	9.8	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Phenol	41	U	90	41	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Pyrene	630		41	8.2	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1
Pentachlorophenol	160	U	410	160	ug/Kg	☼	11/17/21 00:01	11/18/21 17:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	97		45 - 108	11/17/21 00:01	11/18/21 17:42	1
Nitrobenzene-d5 (Surr)	64		32 - 97	11/17/21 00:01	11/18/21 17:42	1
2-Fluorophenol (Surr)	34		26 - 96	11/17/21 00:01	11/18/21 17:42	1
2-Fluorobiphenyl (Surr)	74		39 - 100	11/17/21 00:01	11/18/21 17:42	1
2,4,6-Tribromophenol (Surr)	43		13 - 121	11/17/21 00:01	11/18/21 17:42	1
Phenol-d5 (Surr)	59		27 - 104	11/17/21 00:01	11/18/21 17:42	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	4.2	U	20	4.2	ug/Kg	☼	11/18/21 09:36	11/19/21 16:05	10
alpha-BHC (1C)	6.0	J p	20	4.2	ug/Kg	☼	11/18/21 09:36	11/19/21 16:05	10
beta-BHC (2C)	11	U	24	11	ug/Kg	☼	11/18/21 09:36	11/19/21 16:05	10
delta-BHC (2C)	14	J p	24	11	ug/Kg	☼	11/18/21 09:36	11/19/21 16:05	10
Endosulfan I (1C)	14	J p	20	5.4	ug/Kg	☼	11/18/21 09:36	11/19/21 16:05	10
Endosulfan II (1C)	27	U	56	27	ug/Kg	☼	11/18/21 09:36	11/19/21 16:05	10
Endosulfan sulfate (1C)	8.1	U	42	8.1	ug/Kg	☼	11/18/21 09:36	11/19/21 16:05	10
Endrin (1C)	17	U	42	17	ug/Kg	☼	11/18/21 09:36	11/19/21 16:05	10
Endrin aldehyde (1C)	8.1	U	42	8.1	ug/Kg	☼	11/18/21 09:36	11/19/21 16:05	10
Endrin ketone (1C)	15	U	49	15	ug/Kg	☼	11/18/21 09:36	11/19/21 16:05	10
gamma-Chlordane (2C)	18	J	20	6.1	ug/Kg	☼	11/18/21 09:36	11/19/21 16:05	10
Heptachlor (1C)	25	p	20	7.6	ug/Kg	☼	11/18/21 09:36	11/19/21 16:05	10

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Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

Client Sample ID: BH-04 (9.0-9.5)

Lab Sample ID: 410-62737-1

Date Collected: 11/08/21 07:40

Matrix: Solid

Date Received: 11/10/21 10:49

Percent Solids: 40.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor (1C)	44	U	160	44	ug/Kg	☼	11/18/21 09:36	11/19/21 16:05	10
Toxaphene (1C)	340	U	810	340	ug/Kg	☼	11/18/21 09:36	11/19/21 16:05	10
p,p'-DDD (1C)	8.1	U	42	8.1	ug/Kg	☼	11/18/21 09:36	11/19/21 16:05	10
p,p'-DDE (2C)	14	J p	42	8.1	ug/Kg	☼	11/18/21 09:36	11/19/21 16:05	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	116		54 - 143				11/18/21 09:36	11/19/21 16:05	10
DCB Decachlorobiphenyl (Surr) (2C)	120		54 - 143				11/18/21 09:36	11/19/21 16:05	10
Tetrachloro-m-xylene (Surr) (1C)	328	S1+	20 - 131				11/18/21 09:36	11/19/21 16:05	10
Tetrachloro-m-xylene (Surr) (2C)	254	S1+	20 - 131				11/18/21 09:36	11/19/21 16:05	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-Chlordane (1C)	100	U	510	100	ug/Kg	☼	11/18/21 09:36	11/19/21 16:25	250
Dieldrin (1C)	200	U	1000	200	ug/Kg	☼	11/18/21 09:36	11/19/21 16:25	250
gamma-BHC (Lindane) (1C)	130	U	510	130	ug/Kg	☼	11/18/21 09:36	11/19/21 16:25	250
Heptachlor epoxide (1C)	100	U	510	100	ug/Kg	☼	11/18/21 09:36	11/19/21 16:25	250
p,p'-DDT (1C)	480	U	1000	480	ug/Kg	☼	11/18/21 09:36	11/19/21 16:25	250
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	138		54 - 143				11/18/21 09:36	11/19/21 16:25	250
DCB Decachlorobiphenyl (Surr) (2C)	120		54 - 143				11/18/21 09:36	11/19/21 16:25	250
Tetrachloro-m-xylene (Surr) (1C)	391	S1+	20 - 131				11/18/21 09:36	11/19/21 16:25	250
Tetrachloro-m-xylene (Surr) (2C)	160	p S1+	20 - 131				11/18/21 09:36	11/19/21 16:25	250

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	13	U	42	13	ug/Kg	☼	11/18/21 09:36	11/19/21 08:08	1
PCB-1221 (2C)	13	U	42	13	ug/Kg	☼	11/18/21 09:36	11/19/21 08:08	1
PCB-1232 (2C)	13	U	42	13	ug/Kg	☼	11/18/21 09:36	11/19/21 08:08	1
PCB-1242 (2C)	13	U	42	13	ug/Kg	☼	11/18/21 09:36	11/19/21 08:08	1
PCB-1248 (2C)	26	J	42	13	ug/Kg	☼	11/18/21 09:36	11/19/21 08:08	1
PCB-1254 (2C)	19	J p	42	16	ug/Kg	☼	11/18/21 09:36	11/19/21 08:08	1
PCB-1260 (2C)	22	J	42	16	ug/Kg	☼	11/18/21 09:36	11/19/21 08:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	100		45 - 143				11/18/21 09:36	11/19/21 08:08	1
Tetrachloro-m-xylene (1C)	77		53 - 140				11/18/21 09:36	11/19/21 08:08	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.9	U	12	3.9	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1
Aluminum	20000		46	24	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1
Arsenic	6.8	J	6.9	3.2	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1
Barium	100	B	1.2	0.35	mg/Kg	☼	11/12/21 04:25	11/17/21 13:16	1
Beryllium	0.94	J	1.2	0.23	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1
Cadmium	0.23	U	1.2	0.23	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1
Calcium	79000		120	28	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1
Chromium	33		3.5	0.41	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1
Cobalt	25		1.2	0.34	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1
Copper	39		4.6	1.8	mg/Kg	☼	11/12/21 04:25	11/17/21 13:16	1

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Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

Client Sample ID: BH-04 (9.0-9.5)

Lab Sample ID: 410-62737-1

Date Collected: 11/08/21 07:40

Matrix: Solid

Date Received: 11/10/21 10:49

Percent Solids: 40.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	31000		46	14	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1
Lead	42		3.5	1.4	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1
Magnesium	7200	^2	23	9.2	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1
Manganese	480		2.3	1.2	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1
Nickel	27		2.3	0.60	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1
Potassium	1000		120	47	mg/Kg	☼	11/12/21 04:25	11/18/21 12:31	1
Selenium	3.5	U	12	3.5	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1
Silver	0.93	J ^5-	2.3	0.92	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1
Sodium	160	J	230	110	mg/Kg	☼	11/12/21 04:25	11/17/21 13:16	1
Thallium	3.0	U	6.9	3.0	mg/Kg	☼	11/12/21 04:25	11/18/21 12:31	1
Zinc	110		4.6	2.3	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1
Vanadium	36		2.3	0.99	mg/Kg	☼	11/12/21 04:25	11/16/21 17:27	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.38		0.14	0.058	mg/Kg	☼	11/11/21 15:29	11/11/21 19:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	59.4		1.0	1.0	%			11/10/21 13:30	1

DRAFT

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (54-135)	BFB (50-131)	DBFM (50-141)	TOL (52-141)
410-62737-1	BH-04 (9.0-9.5)	129	123	101	121
LCS 410-194072/4	Lab Control Sample	102	95	97	95
LCSD 410-194072/7	Lab Control Sample Dup	99	93	96	94
MB 410-194072/6	Method Blank	106	96	98	98

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (45-108)	NBZ (32-97)	2FP (26-96)	FBP (39-100)	TBP (13-121)	PHL (27-104)
410-62737-1	BH-04 (9.0-9.5)	97	64	34	74	43	59
LCS 410-195611/2-A	Lab Control Sample	100	75	77	83	92	77
MB 410-195611/1-A	Method Blank	101	78	77	85	91	76

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (54-143)	DCB2 (54-143)	TCX1 (20-131)	TCX2 (20-131)
410-62737-1	BH-04 (9.0-9.5)	116	120	328 S1+	254 S1+
410-62737-1 - DL	BH-04 (9.0-9.5)	138	120	391 S1+	160 p S1+
LCS 410-196203/2-A	Lab Control Sample	77	79	63	63
MB 410-196203/1-A	Method Blank	82	90	74	73

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (45-143)	TCX1 (53-140)
410-62737-1	BH-04 (9.0-9.5)	100	77

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB2 (45-143)	TCX2 (53-140)
LCS 410-196202/2-A	Lab Control Sample	102	85
MB 410-196202/1-A	Method Blank	116	91

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene

DRAFT

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

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

Lab Sample ID: MB 410-194072/6

Matrix: Solid

Analysis Batch: 194072

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	20	U	250	20	ug/Kg			11/12/21 12:51	50
trans-1,3-Dichloropropene	25	U	250	25	ug/Kg			11/12/21 12:51	50
Ethylbenzene	20	U	250	20	ug/Kg			11/12/21 12:51	50
Styrene	20	U	250	20	ug/Kg			11/12/21 12:51	50
1,4-Dichlorobenzene	20	U	250	20	ug/Kg			11/12/21 12:51	50
1,2-Dibromoethane	20	U	250	20	ug/Kg			11/12/21 12:51	50
1,2-Dichloroethane	30	U	250	30	ug/Kg			11/12/21 12:51	50
4-Methyl-2-pentanone	50	U	500	50	ug/Kg			11/12/21 12:51	50
Methylcyclohexane	30	U	250	30	ug/Kg			11/12/21 12:51	50
Toluene	30	U	250	30	ug/Kg			11/12/21 12:51	50
Chlorobenzene	25	U	250	25	ug/Kg			11/12/21 12:51	50
Cyclohexane	25	U	250	25	ug/Kg			11/12/21 12:51	50
1,2,4-Trichlorobenzene	250	U	500	250	ug/Kg			11/12/21 12:51	50
1,4-Dioxane	1900	U	13000	1900	ug/Kg			11/12/21 12:51	50
Dibromochloromethane	100	U	250	100	ug/Kg			11/12/21 12:51	50
Tetrachloroethene	25	U	250	25	ug/Kg			11/12/21 12:51	50
cis-1,2-Dichloroethene	25	U	250	25	ug/Kg			11/12/21 12:51	50
trans-1,2-Dichloroethene	25	U	250	25	ug/Kg			11/12/21 12:51	50
Methyl tertiary butyl ether	25	U	250	25	ug/Kg			11/12/21 12:51	50
m&p-Xylene	50	U	250	50	ug/Kg			11/12/21 12:51	50
1,3-Dichlorobenzene	25	U	250	25	ug/Kg			11/12/21 12:51	50
Carbon tetrachloride	100	U	250	100	ug/Kg			11/12/21 12:51	50
2-Hexanone	50	U	500	50	ug/Kg			11/12/21 12:51	50
Acetone	300	U	1000	300	ug/Kg			11/12/21 12:51	50
Chloroform	30	U	250	30	ug/Kg			11/12/21 12:51	50
Benzene	25	U	250	25	ug/Kg			11/12/21 12:51	50
1,1,1-Trichloroethane	30	U	250	30	ug/Kg			11/12/21 12:51	50
Bromomethane	35	U	250	35	ug/Kg			11/12/21 12:51	50
Chloromethane	30	U	250	30	ug/Kg			11/12/21 12:51	50
Bromochloromethane	30	U	250	30	ug/Kg			11/12/21 12:51	50
Chloroethane	50	U	250	50	ug/Kg			11/12/21 12:51	50
Vinyl chloride	30	U	250	30	ug/Kg			11/12/21 12:51	50
Methylene Chloride	100	U	250	100	ug/Kg			11/12/21 12:51	50
Carbon disulfide	30	U	250	30	ug/Kg			11/12/21 12:51	50
Bromoform	250	U	500	250	ug/Kg			11/12/21 12:51	50
Bromodichloromethane	20	U	250	20	ug/Kg			11/12/21 12:51	50
1,1-Dichloroethane	25	U	250	25	ug/Kg			11/12/21 12:51	50
1,1-Dichloroethene	25	U	250	25	ug/Kg			11/12/21 12:51	50
Trichlorofluoromethane	35	U	250	35	ug/Kg			11/12/21 12:51	50
Dichlorodifluoromethane	30	U	250	30	ug/Kg			11/12/21 12:51	50
Freon 113	30	U	500	30	ug/Kg			11/12/21 12:51	50
1,2-Dichloropropane	25	U	250	25	ug/Kg			11/12/21 12:51	50
2-Butanone	100	U	500	100	ug/Kg			11/12/21 12:51	50
1,1,2-Trichloroethane	25	U	250	25	ug/Kg			11/12/21 12:51	50
Trichloroethene	25	U	250	25	ug/Kg			11/12/21 12:51	50
Methyl acetate	50	U	250	50	ug/Kg			11/12/21 12:51	50
1,1,2,2-Tetrachloroethane	20	U	250	20	ug/Kg			11/12/21 12:51	50
1,2,3-Trichlorobenzene	250	U	500	250	ug/Kg			11/12/21 12:51	50

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

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

Lab Sample ID: MB 410-194072/6

Matrix: Solid

Analysis Batch: 194072

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	20	U	250	20	ug/Kg			11/12/21 12:51	50
1,2-Dichlorobenzene	25	U	250	25	ug/Kg			11/12/21 12:51	50
1,2-Dibromo-3-Chloropropane	50	U	250	50	ug/Kg			11/12/21 12:51	50
Isopropylbenzene	20	U	250	20	ug/Kg			11/12/21 12:51	50

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	106		54 - 135		11/12/21 12:51	50
4-Bromofluorobenzene (Surr)	96		50 - 131		11/12/21 12:51	50
Dibromofluoromethane (Surr)	98		50 - 141		11/12/21 12:51	50
Toluene-d8 (Surr)	98		52 - 141		11/12/21 12:51	50

Lab Sample ID: LCS 410-194072/4

Matrix: Solid

Analysis Batch: 194072

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,3-Dichloropropene	1000	1010		ug/Kg		101	66 - 120
trans-1,3-Dichloropropene	1000	1020		ug/Kg		102	68 - 122
Ethylbenzene	1000	965		ug/Kg		96	78 - 120
Styrene	1000	982		ug/Kg		98	76 - 120
1,4-Dichlorobenzene	1000	960		ug/Kg		96	80 - 120
1,2-Dibromoethane	1000	974		ug/Kg		97	76 - 120
1,2-Dichloroethane	1000	893		ug/Kg		89	71 - 128
4-Methyl-2-pentanone	12500	10300		ug/Kg		82	67 - 128
Methylcyclohexane	1000	849		ug/Kg		85	61 - 124
Toluene	1000	968		ug/Kg		97	80 - 120
Chlorobenzene	1000	997		ug/Kg		100	80 - 120
Cyclohexane	1000	773		ug/Kg		77	58 - 126
1,2,4-Trichlorobenzene	1000	959		ug/Kg		96	56 - 130
1,4-Dioxane	25000	26700		ug/Kg		107	62 - 131
Dibromochloromethane	1000	1100		ug/Kg		110	69 - 125
Tetrachloroethene	1000	982		ug/Kg		98	73 - 120
cis-1,2-Dichloroethene	1000	1050		ug/Kg		105	80 - 125
trans-1,2-Dichloroethene	1000	1010		ug/Kg		101	80 - 126
Methyl tertiary butyl ether	1000	879		ug/Kg		88	72 - 120
m&p-Xylene	2000	1990		ug/Kg		99	80 - 120
1,3-Dichlorobenzene	1000	955		ug/Kg		95	75 - 120
Carbon tetrachloride	1000	1040		ug/Kg		104	64 - 134
2-Hexanone	12500	9950		ug/Kg		80	54 - 140
Acetone	12500	13800		ug/Kg		110	41 - 150
Chloroform	1000	964		ug/Kg		96	80 - 120
Benzene	1000	981		ug/Kg		98	80 - 120
1,1,1-Trichloroethane	1000	985		ug/Kg		98	69 - 123
Bromomethane	1000	999		ug/Kg		100	45 - 140
Chloromethane	1000	963		ug/Kg		96	56 - 120
Bromochloromethane	1000	1040		ug/Kg		104	72 - 124
Chloroethane	1000	1110		ug/Kg		111	43 - 135
Vinyl chloride	1000	952		ug/Kg		95	52 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

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

Lab Sample ID: LCS 410-194072/4

Matrix: Solid

Analysis Batch: 194072

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	1000	1020		ug/Kg		102	76 - 122
Carbon disulfide	1000	1000		ug/Kg		100	64 - 133
Bromoform	1000	1050		ug/Kg		105	51 - 127
Bromodichloromethane	1000	1040		ug/Kg		104	70 - 120
1,1-Dichloroethane	1000	933		ug/Kg		93	79 - 120
1,1-Dichloroethene	1000	1000		ug/Kg		100	73 - 129
Trichlorofluoromethane	1000	765		ug/Kg		76	55 - 134
Dichlorodifluoromethane	1000	493		ug/Kg		49	21 - 127
Freon 113	1000	822		ug/Kg		82	64 - 135
1,2-Dichloropropane	1000	963		ug/Kg		96	80 - 120
2-Butanone	12500	11100		ug/Kg		89	57 - 128
1,1,2-Trichloroethane	1000	991		ug/Kg		99	80 - 120
Trichloroethene	1000	984		ug/Kg		98	80 - 120
Methyl acetate	1000	865		ug/Kg		86	67 - 128
1,1,1,2-Tetrachloroethane	1000	956		ug/Kg		96	69 - 125
1,2,3-Trichlorobenzene	1000	936		ug/Kg		94	57 - 131
o-Xylene	1000	993		ug/Kg		99	75 - 120
1,2-Dichlorobenzene	1000	942		ug/Kg		94	76 - 120
1,2-Dibromo-3-Chloropropane	1000	756		ug/Kg		76	48 - 134
Isopropylbenzene	1000	1000		ug/Kg		100	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		54 - 135
4-Bromofluorobenzene (Surr)	95		50 - 131
Dibromofluoromethane (Surr)	97		50 - 141
Toluene-d8 (Surr)	95		52 - 141

Lab Sample ID: LCSD 410-194072/7

Matrix: Solid

Analysis Batch: 194072

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	1000	997		ug/Kg		100	66 - 120	1	30
trans-1,3-Dichloropropene	1000	990		ug/Kg		99	68 - 122	3	30
Ethylbenzene	1000	951		ug/Kg		95	78 - 120	1	30
Styrene	1000	963		ug/Kg		96	76 - 120	2	30
1,4-Dichlorobenzene	1000	935		ug/Kg		93	80 - 120	3	30
1,2-Dibromoethane	1000	939		ug/Kg		94	76 - 120	4	30
1,2-Dichloroethane	1000	872		ug/Kg		87	71 - 128	2	30
4-Methyl-2-pentanone	12500	9670		ug/Kg		77	67 - 128	6	30
Methylcyclohexane	1000	812		ug/Kg		81	61 - 124	4	30
Toluene	1000	954		ug/Kg		95	80 - 120	1	30
Chlorobenzene	1000	983		ug/Kg		98	80 - 120	1	30
Cyclohexane	1000	784		ug/Kg		78	58 - 126	2	30
1,2,4-Trichlorobenzene	1000	921		ug/Kg		92	56 - 130	4	30
1,4-Dioxane	25000	28200		ug/Kg		113	62 - 131	6	30
Dibromochloromethane	1000	1060		ug/Kg		106	69 - 125	4	30
Tetrachloroethene	1000	985		ug/Kg		98	73 - 120	0	30

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

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

Lab Sample ID: LCSD 410-194072/7

Matrix: Solid

Analysis Batch: 194072

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Added	Result	Qualifier				Limits		Limit
cis-1,2-Dichloroethene	1000	1030		ug/Kg		103	80 - 125	3	30
trans-1,2-Dichloroethene	1000	984		ug/Kg		98	80 - 126	2	30
Methyl tertiary butyl ether	1000	896		ug/Kg		90	72 - 120	2	30
m&p-Xylene	2000	1950		ug/Kg		97	80 - 120	2	30
1,3-Dichlorobenzene	1000	937		ug/Kg		94	75 - 120	2	30
Carbon tetrachloride	1000	1030		ug/Kg		103	64 - 134	1	30
2-Hexanone	12500	8400		ug/Kg		67	54 - 140	17	30
Acetone	12500	10800		ug/Kg		86	41 - 150	24	30
Chloroform	1000	949		ug/Kg		95	80 - 120	2	30
Benzene	1000	970		ug/Kg		97	80 - 120	1	30
1,1,1-Trichloroethane	1000	962		ug/Kg		96	69 - 123	2	30
Bromomethane	1000	975		ug/Kg		98	45 - 140	2	30
Chloromethane	1000	948		ug/Kg		95	56 - 120	1	30
Bromochloromethane	1000	1020		ug/Kg		102	72 - 124	3	30
Chloroethane	1000	986		ug/Kg		99	43 - 135	12	30
Vinyl chloride	1000	998		ug/Kg		100	52 - 120	5	30
Methylene Chloride	1000	993		ug/Kg		99	76 - 122	3	30
Carbon disulfide	1000	1000		ug/Kg		100	64 - 133	0	30
Bromoform	1000	1010		ug/Kg		101	51 - 127	5	30
Bromodichloromethane	1000	1010		ug/Kg		101	70 - 120	4	30
1,1-Dichloroethane	1000	917		ug/Kg		92	79 - 120	2	30
1,1-Dichloroethene	1000	1020		ug/Kg		102	73 - 129	2	30
Trichlorofluoromethane	1000	811		ug/Kg		81	55 - 134	6	30
Dichlorodifluoromethane	1000	529		ug/Kg		53	21 - 127	7	30
Freon 113	1000	832		ug/Kg		83	64 - 135	1	30
1,2-Dichloropropane	1000	944		ug/Kg		94	80 - 120	2	30
2-Butanone	12500	8630		ug/Kg		69	57 - 128	25	30
1,1,2-Trichloroethane	1000	963		ug/Kg		96	80 - 120	3	30
Trichloroethene	1000	979		ug/Kg		98	80 - 120	0	30
Methyl acetate	1000	831		ug/Kg		83	67 - 128	4	30
1,1,2,2-Tetrachloroethane	1000	930		ug/Kg		93	69 - 125	3	30
1,2,3-Trichlorobenzene	1000	923		ug/Kg		92	57 - 131	1	30
o-Xylene	1000	968		ug/Kg		97	75 - 120	3	30
1,2-Dichlorobenzene	1000	927		ug/Kg		93	76 - 120	2	30
1,2-Dibromo-3-Chloropropane	1000	759		ug/Kg		76	48 - 134	0	30
Isopropylbenzene	1000	978		ug/Kg		98	77 - 120	2	30

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	99		54 - 135
4-Bromofluorobenzene (Surr)	93		50 - 131
Dibromofluoromethane (Surr)	96		50 - 141
Toluene-d8 (Surr)	94		52 - 141

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

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

Lab Sample ID: MB 410-195611/1-A
Matrix: Solid
Analysis Batch: 196271

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 195611

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1'-Biphenyl	17	U	37	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
1,2,4,5-Tetrachlorobenzene	17	U	37	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
2,2'-oxybis[1-chloropropane]	20	U	43	20	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
2,3,4,6-Tetrachlorophenol	67	U	170	67	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
2,4,5-Trichlorophenol	17	U	37	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
2,4,6-Trichlorophenol	17	U	37	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
2,4-Dichlorophenol	20	U	43	20	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
2,4-Dimethylphenol	17	U	37	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
2,4-Dinitrophenol	170	U	1000	170	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
2,4-Dinitrotoluene	33	U	170	33	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
2,6-Dinitrotoluene	17	U	37	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
2-Chloronaphthalene	13	U	33	13	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
2-Chlorophenol	17	U	37	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
2-Methylnaphthalene	5.0	U	17	5.0	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
2-Methylphenol	20	U	50	20	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
2-Nitroaniline	17	U	50	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
2-Nitrophenol	20	U	50	20	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
3,3'-Dichlorobenzidine	33	U	170	33	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
3-Nitroaniline	33	U	170	33	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
4,6-Dinitro-2-methylphenol	170	U	500	170	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
4-Bromophenyl-phenylether	17	U	37	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
4-Chloro-3-methylphenol	20	U	50	20	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
4-Methylphenol	17	U	50	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
4-Nitroaniline	33	U	170	33	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
4-Nitrophenol	170	U	500	170	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Acenaphthene	3.3	U	17	3.3	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Acenaphthylene	4.0	U	17	4.0	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Acetophenone	17	U	50	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Anthracene	3.3	U	17	3.3	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Atrazine	67	U	170	67	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Benzaldehyde	33	U	170	33	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Benzo[a]anthracene	3.3	U	17	3.3	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Benzo[a]pyrene	3.3	U	17	3.3	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Benzo[b]fluoranthene	3.3	U	17	3.3	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Benzo[g,h,i]perylene	3.3	U	17	3.3	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Benzo[k]fluoranthene	3.3	U	17	3.3	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Bis(2-chloroethoxy)methane	17	U	37	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Bis(2-chloroethyl)ether	17	U	37	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Bis(2-ethylhexyl) phthalate	67	U	170	67	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Butylbenzylphthalate	67	U	170	67	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Caprolactam	33	U	170	33	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Carbazole	17	U	37	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Chrysene	3.3	U	17	3.3	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Di-n-butyl phthalate	67	U	170	67	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Di-n-octyl phthalate	67	U	170	67	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Dibenz(a,h)anthracene	6.7	U	17	6.7	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Dibenzofuran	17	U	37	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Diethyl phthalate	67	U	170	67	ug/Kg		11/17/21 00:01	11/18/21 11:27	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

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

Lab Sample ID: MB 410-195611/1-A

Matrix: Solid

Analysis Batch: 196271

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 195611

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dimethyl phthalate	67	U	170	67	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Fluoranthene	3.3	U	17	3.3	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Fluorene	3.3	U	17	3.3	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Hexachlorobenzene	6.7	U	17	6.7	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Hexachlorobutadiene	20	U	50	20	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Hexachlorocyclopentadiene	170	U	500	170	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Hexachloroethane	33	U	170	33	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Indeno[1,2,3-cd]pyrene	4.0	U	17	4.0	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Isophorone	17	U	67	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
N-Nitrosodi-n-propylamine	33	U	67	33	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
N-Nitrosodiphenylamine	17	U	37	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Naphthalene	6.7	U	17	6.7	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Nitrobenzene	17	U	37	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Phenanthrene	4.0	U	17	4.0	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Phenol	17	U	37	17	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Pyrene	3.3	U	17	3.3	ug/Kg		11/17/21 00:01	11/18/21 11:27	1
Pentachlorophenol	67	U	170	67	ug/Kg		11/17/21 00:01	11/18/21 11:27	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
p-Terphenyl-d14 (Surr)	101		45 - 108	11/17/21 00:01	11/18/21 11:27	1
Nitrobenzene-d5 (Surr)	78		32 - 97	11/17/21 00:01	11/18/21 11:27	1
2-Fluorophenol (Surr)	77		26 - 96	11/17/21 00:01	11/18/21 11:27	1
2-Fluorobiphenyl (Surr)	85		39 - 100	11/17/21 00:01	11/18/21 11:27	1
2,4,6-Tribromophenol (Surr)	91		13 - 121	11/17/21 00:01	11/18/21 11:27	1
Phenol-d5 (Surr)	76		27 - 104	11/17/21 00:01	11/18/21 11:27	1

Lab Sample ID: LCS 410-195611/2-A

Matrix: Solid

Analysis Batch: 196271

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 195611

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	1670	1430		ug/Kg		86	60 - 120
2,2'-oxybis[1-chloropropane]	1670	1250		ug/Kg		75	48 - 120
2,3,4,6-Tetrachlorophenol	1670	1520		ug/Kg		91	59 - 120
2,4,5-Trichlorophenol	1670	1660		ug/Kg		100	61 - 120
2,4,6-Trichlorophenol	1670	1650		ug/Kg		99	59 - 120
2,4-Dichlorophenol	1670	1540		ug/Kg		93	62 - 120
2,4-Dimethylphenol	1670	1480		ug/Kg		89	65 - 120
2,4-Dinitrophenol	3330	3040		ug/Kg		91	44 - 120
2,4-Dinitrotoluene	1670	1520		ug/Kg		91	68 - 120
2,6-Dinitrotoluene	1670	1580		ug/Kg		95	67 - 120
2-Chloronaphthalene	1670	1490		ug/Kg		89	61 - 120
2-Chlorophenol	1670	1370		ug/Kg		82	59 - 120
2-Methylnaphthalene	1670	1400		ug/Kg		84	63 - 120
2-Methylphenol	1670	1460		ug/Kg		87	63 - 120
2-Nitroaniline	1670	1590		ug/Kg		95	64 - 120
2-Nitrophenol	1670	1440		ug/Kg		87	55 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

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

Lab Sample ID: LCS 410-195611/2-A

Matrix: Solid

Analysis Batch: 196271

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 195611

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3,3'-Dichlorobenzidine	3330	1630		ug/Kg		49	19 - 120
3-Nitroaniline	1670	855		ug/Kg		51	31 - 120
4,6-Dinitro-2-methylphenol	3330	3360		ug/Kg		101	59 - 120
4-Bromophenyl-phenylether	1670	1610		ug/Kg		97	65 - 120
4-Chloro-3-methylphenol	1670	1500		ug/Kg		90	67 - 120
4-Methylphenol	1670	1330		ug/Kg		80	56 - 120
4-Nitroaniline	1670	1450		ug/Kg		87	59 - 120
4-Nitrophenol	3330	2870		ug/Kg		86	58 - 120
Acenaphthene	1670	1450		ug/Kg		87	61 - 120
Acenaphthylene	1670	1540		ug/Kg		93	69 - 120
Acetophenone	1670	1300		ug/Kg		78	54 - 120
Anthracene	1670	1640		ug/Kg		99	75 - 120
Atrazine	1670	1710		ug/Kg		102	63 - 127
Benzaldehyde	1670	1090		ug/Kg		65	25 - 120
Benzo[a]anthracene	1670	1640		ug/Kg		98	73 - 120
Benzo[a]pyrene	1670	1770		ug/Kg		106	80 - 123
Benzo[b]fluoranthene	1670	1540		ug/Kg		92	63 - 120
Benzo[g,h,i]perylene	1670	1800		ug/Kg		108	77 - 120
Benzo[k]fluoranthene	1670	1690		ug/Kg		102	68 - 120
Bis(2-chloroethoxy)methane	1670	1380		ug/Kg		83	55 - 120
Bis(2-chloroethyl)ether	1670	1270		ug/Kg		76	49 - 120
Bis(2-ethylhexyl) phthalate	1670	1670		ug/Kg		100	65 - 120
Butylbenzylphthalate	1670	1600		ug/Kg		96	66 - 120
Caprolactam	1670	1700		ug/Kg		102	54 - 120
Carbazole	1670	1640		ug/Kg		98	74 - 120
Chrysene	1670	1550		ug/Kg		93	66 - 120
Di-n-butyl phthalate	1670	1720		ug/Kg		103	65 - 120
Di-n-octyl phthalate	1670	1830		ug/Kg		110	60 - 125
Dibenz(a,h)anthracene	1670	1770		ug/Kg		106	72 - 120
Dibenzofuran	1670	1470		ug/Kg		88	68 - 120
Diethyl phthalate	1670	1550		ug/Kg		93	65 - 120
Dimethyl phthalate	1670	1510		ug/Kg		91	67 - 120
Fluoranthene	1670	1660		ug/Kg		99	71 - 120
Fluorene	1670	1510		ug/Kg		91	68 - 120
Hexachlorobenzene	1670	1620		ug/Kg		97	58 - 120
Hexachlorobutadiene	1670	1320		ug/Kg		79	48 - 120
Hexachlorocyclopentadiene	1670	1330		ug/Kg		80	43 - 120
Hexachloroethane	1670	1170		ug/Kg		70	48 - 120
Indeno[1,2,3-cd]pyrene	1670	1780		ug/Kg		107	71 - 122
Isophorone	1670	1420		ug/Kg		85	62 - 120
N-Nitrosodi-n-propylamine	1670	1330		ug/Kg		80	55 - 120
N-Nitrosodiphenylamine	1420	1460		ug/Kg		103	71 - 120
Naphthalene	1670	1330		ug/Kg		80	60 - 120
Nitrobenzene	1670	1290		ug/Kg		77	56 - 120
Phenanthrene	1670	1590		ug/Kg		95	74 - 120
Phenol	1670	1360		ug/Kg		82	57 - 120
Pyrene	1670	1590		ug/Kg		95	70 - 120
Pentachlorophenol	3330	3530		ug/Kg		106	41 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

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

Lab Sample ID: LCS 410-195611/2-A

Matrix: Solid

Analysis Batch: 196271

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 195611

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
p-Terphenyl-d14 (Surr)	100		45 - 108
Nitrobenzene-d5 (Surr)	75		32 - 97
2-Fluorophenol (Surr)	77		26 - 96
2-Fluorobiphenyl (Surr)	83		39 - 100
2,4,6-Tribromophenol (Surr)	92		13 - 121
Phenol-d5 (Surr)	77		27 - 104

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-196203/1-A

Matrix: Solid

Analysis Batch: 196754

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 196203

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin (1C)	0.17	U	0.83	0.17	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
alpha-BHC (1C)	0.17	U	0.83	0.17	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
alpha-Chlordane (1C)	0.17	U	0.83	0.17	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
beta-BHC (1C)	0.44	U	1.0	0.44	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
delta-BHC (1C)	0.45	U	1.0	0.45	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Dieldrin (1C)	0.33	U	1.7	0.33	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Endosulfan I (1C)	0.22	U	0.83	0.22	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Endosulfan II (1C)	1.1	U	2.3	1.1	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Endosulfan sulfate (1C)	0.33	U	1.7	0.33	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Endrin (1C)	0.68	U	1.7	0.68	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Endrin aldehyde (1C)	0.33	U	1.7	0.33	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Endrin ketone (1C)	0.60	U	2.0	0.60	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
gamma-BHC (Lindane) (1C)	0.21	U	0.83	0.21	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
gamma-Chlordane (1C)	0.25	U	0.83	0.25	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Heptachlor (1C)	0.31	U	0.83	0.31	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Heptachlor epoxide (1C)	0.17	U	0.83	0.17	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Methoxychlor (1C)	1.8	U	6.7	1.8	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Toxaphene (1C)	14	U	33	14	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
p,p'-DDD (1C)	0.33	U	1.7	0.33	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
p,p'-DDE (1C)	0.33	U	1.7	0.33	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
p,p'-DDT (1C)	0.79	U	1.7	0.79	ug/Kg		11/18/21 09:36	11/19/21 11:45	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	82		54 - 143	11/18/21 09:36	11/19/21 11:45	1
DCB Decachlorobiphenyl (Surr) (2C)	90		54 - 143	11/18/21 09:36	11/19/21 11:45	1
Tetrachloro-m-xylene (Surr) (1C)	74		20 - 131	11/18/21 09:36	11/19/21 11:45	1
Tetrachloro-m-xylene (Surr) (2C)	73		20 - 131	11/18/21 09:36	11/19/21 11:45	1

Lab Sample ID: LCS 410-196203/2-A

Matrix: Solid

Analysis Batch: 196754

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 196203

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Aldrin (2C)	3.38	2.89		ug/Kg		86	56 - 134

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

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

Lab Sample ID: LCS 410-196203/2-A

Matrix: Solid

Analysis Batch: 196754

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 196203

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha-BHC (2C)	3.38	2.99		ug/Kg		88	55 - 135
beta-BHC (2C)	3.33	3.04		ug/Kg		91	50 - 132
delta-BHC (1C)	3.33	3.14		ug/Kg		94	47 - 141
Dieldrin (1C)	6.67	5.96		ug/Kg		89	54 - 136
Endosulfan I (2C)	3.38	2.97		ug/Kg		88	51 - 124
Endosulfan II (1C)	6.71	6.05		ug/Kg		90	56 - 125
Endosulfan sulfate (2C)	6.71	6.19		ug/Kg		92	56 - 125
Endrin (2C)	6.67	6.39		ug/Kg		96	56 - 129
Endrin aldehyde (2C)	6.71	5.49		ug/Kg		82	46 - 133
Endrin ketone (2C)	6.67	5.76		ug/Kg		86	55 - 128
gamma-BHC (Lindane) (1C)	3.33	2.90		ug/Kg		87	52 - 138
Heptachlor (2C)	3.38	2.96		ug/Kg		88	52 - 139
Heptachlor epoxide (2C)	3.33	3.01		ug/Kg		90	55 - 133
Methoxychlor (2C)	33.6	31.8		ug/Kg		95	54 - 148
p,p'-DDD (2C)	6.71	6.10		ug/Kg		91	59 - 135
p,p'-DDE (2C)	6.71	6.00		ug/Kg		89	57 - 135
p,p'-DDT (1C)	6.71	6.42		ug/Kg		96	53 - 151

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr) (1C)	77		54 - 143
DCB Decachlorobiphenyl (Surr) (2C)	79		54 - 143
Tetrachloro-m-xylene (Surr) (1C)	63		20 - 131
Tetrachloro-m-xylene (Surr) (2C)	63		20 - 131

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

Lab Sample ID: MB 410-196202/1-A

Matrix: Solid

Analysis Batch: 196799

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 196202

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016 (2C)	5.3	U	17	5.3	ug/Kg		11/18/21 09:36	11/19/21 07:47	1
PCB-1221 (2C)	5.3	U	17	5.3	ug/Kg		11/18/21 09:36	11/19/21 07:47	1
PCB-1232 (2C)	5.3	U	17	5.3	ug/Kg		11/18/21 09:36	11/19/21 07:47	1
PCB-1242 (2C)	5.3	U	17	5.3	ug/Kg		11/18/21 09:36	11/19/21 07:47	1
PCB-1248 (2C)	5.3	U	17	5.3	ug/Kg		11/18/21 09:36	11/19/21 07:47	1
PCB-1254 (2C)	6.4	U	17	6.4	ug/Kg		11/18/21 09:36	11/19/21 07:47	1
PCB-1260 (2C)	6.4	U	17	6.4	ug/Kg		11/18/21 09:36	11/19/21 07:47	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (2C)	116		45 - 143	11/18/21 09:36	11/19/21 07:47	1
Tetrachloro-m-xylene (2C)	91		53 - 140	11/18/21 09:36	11/19/21 07:47	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

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

Lab Sample ID: LCS 410-196202/2-A
Matrix: Solid
Analysis Batch: 196799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196202

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016 (2C)	167	116		ug/Kg		69	68 - 121
PCB-1260 (2C)	168	146		ug/Kg		87	75 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (2C)	102		45 - 143
Tetrachloro-m-xylene (2C)	85		53 - 140

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-193945/1-A
Matrix: Solid
Analysis Batch: 195532

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 193945

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.7	U	5.0	1.7	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Aluminum	11	U	20	11	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Arsenic	1.4	U	3.0	1.4	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Beryllium	0.10	U	0.50	0.10	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Cadmium	0.10	U	0.50	0.10	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Calcium	12	U	50	12	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Chromium	0.18	U	1.5	0.18	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Cobalt	0.15	U	0.50	0.15	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Copper	0.77	U ^3+	2.0	0.77	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Iron	6.2	U	20	6.2	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Lead	0.60	U	1.5	0.60	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Magnesium	4.0	U	10	4.0	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Manganese	0.52	U	1.0	0.52	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Nickel	0.26	U	1.0	0.26	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Potassium	20	U ^+ ^3+	50	20	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Selenium	1.5	U	5.0	1.5	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Silver	0.40	U ^5-	1.0	0.40	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Sodium	46	U	100	46	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Zinc	1.0	U	2.0	1.0	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Vanadium	0.43	U	1.0	0.43	mg/Kg		11/12/21 04:25	11/16/21 16:00	1

Lab Sample ID: MB 410-193945/1-A
Matrix: Solid
Analysis Batch: 195925

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 193945

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	2.02		0.50	0.15	mg/Kg		11/12/21 04:25	11/17/21 11:40	1
Copper	0.77	U	2.0	0.77	mg/Kg		11/12/21 04:25	11/17/21 11:40	1
Potassium	20	U ^3+	50	20	mg/Kg		11/12/21 04:25	11/17/21 11:40	1
Sodium	46	U	100	46	mg/Kg		11/12/21 04:25	11/17/21 11:40	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

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

Lab Sample ID: MB 410-193945/1-A
Matrix: Solid
Analysis Batch: 196435

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 193945

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Potassium	20	U	50	20	mg/Kg		11/12/21 04:25	11/18/21 12:25	1
Thallium	1.3	U	3.0	1.3	mg/Kg		11/12/21 04:25	11/18/21 12:25	1

Lab Sample ID: LCS 410-193945/2-A
Matrix: Solid
Analysis Batch: 195532

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193945

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	500	477		mg/Kg		95	80 - 120
Arsenic	50.0	49.5		mg/Kg		99	80 - 120
Beryllium	5.00	5.10		mg/Kg		102	80 - 120
Cadmium	5.00	4.98		mg/Kg		100	80 - 120
Calcium	500	513		mg/Kg		103	80 - 120
Chromium	50.0	51.4		mg/Kg		103	80 - 120
Cobalt	50.0	51.4		mg/Kg		103	80 - 120
Iron	500	549		mg/Kg		110	80 - 120
Lead	5.00	5.06		mg/Kg		101	80 - 120
Magnesium	500	533		mg/Kg		107	80 - 120
Manganese	50.0	51.2		mg/Kg		102	80 - 120
Nickel	50.0	51.2		mg/Kg		102	80 - 120
Selenium	10.0	10.4		mg/Kg		104	80 - 120
Silver	5.00	5.08	^5-	mg/Kg		102	80 - 120
Sodium	500	569		mg/Kg		114	80 - 120
Zinc	50.0	49.1		mg/Kg		98	80 - 120
Vanadium	50.0	50.0		mg/Kg		100	80 - 120

Lab Sample ID: LCS 410-193945/2-A
Matrix: Solid
Analysis Batch: 195925

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193945

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	50.0	52.6		mg/Kg		105	80 - 120
Sodium	500	509		mg/Kg		102	80 - 120

Lab Sample ID: LCS 410-193945/2-A
Matrix: Solid
Analysis Batch: 196435

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193945

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	10.0	10.4		mg/Kg		104	80 - 120

QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-193752/1-A
Matrix: Solid
Analysis Batch: 193859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 193752

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.025	U	0.060	0.025	mg/Kg		11/11/21 15:29	11/11/21 18:46	1

Lab Sample ID: LCS 410-193752/2-A
Matrix: Solid
Analysis Batch: 193859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193752

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.182		mg/Kg		109	80 - 120

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QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

GC/MS VOA

Prep Batch: 193175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62737-1	BH-04 (9.0-9.5)	Total/NA	Solid	5035	

Analysis Batch: 194072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62737-1	BH-04 (9.0-9.5)	Total/NA	Solid	8260C	193175
MB 410-194072/6	Method Blank	Total/NA	Solid	8260C	
LCS 410-194072/4	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-194072/7	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 195611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62737-1	BH-04 (9.0-9.5)	Total/NA	Solid	3546	
MB 410-195611/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-195611/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 196271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62737-1	BH-04 (9.0-9.5)	Total/NA	Solid	8270D	195611
MB 410-195611/1-A	Method Blank	Total/NA	Solid	8270D	195611
LCS 410-195611/2-A	Lab Control Sample	Total/NA	Solid	8270D	195611

GC Semi VOA

Prep Batch: 196202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62737-1	BH-04 (9.0-9.5)	Total/NA	Solid	3546	
MB 410-196202/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-196202/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 196203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62737-1	BH-04 (9.0-9.5)	Total/NA	Solid	3546	
410-62737-1 - DL	BH-04 (9.0-9.5)	Total/NA	Solid	3546	
MB 410-196203/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-196203/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 196754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62737-1	BH-04 (9.0-9.5)	Total/NA	Solid	8081B	196203
410-62737-1 - DL	BH-04 (9.0-9.5)	Total/NA	Solid	8081B	196203
MB 410-196203/1-A	Method Blank	Total/NA	Solid	8081B	196203
LCS 410-196203/2-A	Lab Control Sample	Total/NA	Solid	8081B	196203

Analysis Batch: 196799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62737-1	BH-04 (9.0-9.5)	Total/NA	Solid	8082A	196202
MB 410-196202/1-A	Method Blank	Total/NA	Solid	8082A	196202
LCS 410-196202/2-A	Lab Control Sample	Total/NA	Solid	8082A	196202

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

Metals

Prep Batch: 193752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62737-1	BH-04 (9.0-9.5)	Total/NA	Solid	7471B	
MB 410-193752/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-193752/2-A	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 193859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62737-1	BH-04 (9.0-9.5)	Total/NA	Solid	7471B	193752
MB 410-193752/1-A	Method Blank	Total/NA	Solid	7471B	193752
LCS 410-193752/2-A	Lab Control Sample	Total/NA	Solid	7471B	193752

Prep Batch: 193945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62737-1	BH-04 (9.0-9.5)	Total/NA	Solid	3050B	
MB 410-193945/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-193945/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 195532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62737-1	BH-04 (9.0-9.5)	Total/NA	Solid	6010D	193945
MB 410-193945/1-A	Method Blank	Total/NA	Solid	6010D	193945
LCS 410-193945/2-A	Lab Control Sample	Total/NA	Solid	6010D	193945

Analysis Batch: 195925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62737-1	BH-04 (9.0-9.5)	Total/NA	Solid	6010D	193945
MB 410-193945/1-A	Method Blank	Total/NA	Solid	6010D	193945
LCS 410-193945/2-A	Lab Control Sample	Total/NA	Solid	6010D	193945

Analysis Batch: 196435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62737-1	BH-04 (9.0-9.5)	Total/NA	Solid	6010D	193945
MB 410-193945/1-A	Method Blank	Total/NA	Solid	6010D	193945
LCS 410-193945/2-A	Lab Control Sample	Total/NA	Solid	6010D	193945

General Chemistry

Analysis Batch: 193140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62737-1	BH-04 (9.0-9.5)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

Client Sample ID: BH-04 (9.0-9.5)

Lab Sample ID: 410-62737-1

Date Collected: 11/08/21 07:40

Matrix: Solid

Date Received: 11/10/21 10:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	193140	11/10/21 13:30	UGCW	ELLE

Client Sample ID: BH-04 (9.0-9.5)

Lab Sample ID: 410-62737-1

Date Collected: 11/08/21 07:40

Matrix: Solid

Date Received: 11/10/21 10:49

Percent Solids: 40.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			193175	11/10/21 14:24	UK3O	ELLE
Total/NA	Analysis	8260C		50	194072	11/12/21 16:08	USEJ	ELLE
Total/NA	Prep	3546			195611	11/17/21 00:01	USL7	ELLE
Total/NA	Analysis	8270D		1	196271	11/18/21 17:42	SJ89	ELLE
Total/NA	Prep	3546			196203	11/18/21 09:36	H2LC	ELLE
Total/NA	Analysis	8081B		10	196754	11/19/21 16:05	WN7O	ELLE
Total/NA	Prep	3546	DL		196203	11/18/21 09:36	H2LC	ELLE
Total/NA	Analysis	8081B	DL	250	196754	11/19/21 16:25	WN7O	ELLE
Total/NA	Prep	3546			196202	11/18/21 09:36	H2LC	ELLE
Total/NA	Analysis	8082A		1	196799	11/19/21 08:08	JC94	ELLE
Total/NA	Prep	3050B			193945	11/12/21 04:25	UAMX	ELLE
Total/NA	Analysis	6010D		1	195532	11/16/21 17:27	UCIG	ELLE
Total/NA	Prep	3050B			193945	11/12/21 04:25	UAMX	ELLE
Total/NA	Analysis	6010D		1	196435	11/18/21 12:31	WJM9	ELLE
Total/NA	Prep	3050B			193945	11/12/21 04:25	UAMX	ELLE
Total/NA	Analysis	6010D		1	195925	11/17/21 13:16	WJM9	ELLE
Total/NA	Prep	7471B			193752	11/11/21 15:29	UJLA	ELLE
Total/NA	Analysis	7471B		1	193859	11/11/21 19:38	UEFS	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22

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
8260C	5035	Solid	m&p-Xylene
8260C	5035	Solid	o-Xylene
Moisture		Solid	Percent Moisture

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Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
6010D	Metals (ICP)	SW846	ELLE
7471B	Mercury (CVAA)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
7471B	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62737-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-62737-1	BH-04 (9.0-9.5)	Solid	11/08/21 07:40	11/10/21 10:49

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Baltimore #201

Chain of Custody Record

552166



Environment Testing TestAmerica

410-62737 Chain of Custody

Regulatory Program: DW NPDES RCRA Other: VADP

TAL-8210

Client Contact Company Name: <u>ROUX Associates</u> Address: <u>402 HPCOR DRIVE</u> City/State/Zip: <u>LOHAS TWP, NJ 08055</u> Phone: <u>856-423-8500</u> Fax: Project Name: <u>Mveser-Alexandria</u> Site: <u>Alexandria, VA</u> P O #			Project Manager: <u>Ashley Sweaney</u> Tel/Email: <u>asweaney@rouxinc.com</u> Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day			Site Contact: Lab Contact: Date: <u>11/8/21</u> Carrier: COC No: <u>1</u> of <u>1</u> COCs			Sampler: For Lab Use Only: Walk-in Client: Lab Sampling: Job / SDG No.:														
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)											Sample Specific Notes:				
<u>BH-04(9.0-9.5)</u>		<u>11/8/21</u>	<u>740</u>	<u>G</u>	<u>Soil</u>	<u>6</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>								
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other																							
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months													
Special Instructions/QC Requirements & Comments:																							
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Custody Seal No.:				Cooler Temp. (°C): Obs'd: <u>2.6</u> Corr'd: <u>2.9</u>				Therm ID No.: <u>6045</u>											
Relinquished by: <u>[Signature]</u>				Company: <u>ROUX</u>				Date/Time: <u>11/8/21 1100</u>				Received by: <u>[Signature]</u>				Company: <u>[Signature]</u>				Date/Time: <u>11/8/21 1120</u>			
Relinquished by: <u>[Signature]</u>				Company: <u>[Signature]</u>				Date/Time: <u>11/8/21 1700</u>				Received by: <u>[Signature]</u>				Company: <u>[Signature]</u>				Date/Time: <u>[Signature]</u>			
Relinquished by: <u>[Signature]</u>				Company: <u>[Signature]</u>				Date/Time: <u>[Signature]</u>				Received in Laboratory by: <u>[Signature]</u>				Company: <u>ELUE</u>				Date/Time: <u>11/10/21 10049</u>			

DBS



Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-62737-1

Login Number: 62737

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Bryan, Debra A

Question	Answer	Comment
The cooler's custody seal is intact.	True	
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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-62932-1
Client Project/Site: Mueser - Alexandria

For:

Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

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11/24/2021 2:17:56 PM

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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A handwritten signature in cursive script that reads "Kelly Tessier".

Kelly Tessier
Project Manager
11/24/2021 2:17:56 PM



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Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
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.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
^5+	Linear Range Check (LRC) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
POS	Positive / Present
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

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Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

Job ID: 410-62932-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-62932-1

Receipt

The sample was received on 11/11/2021 10:59 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.7°C

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

GC/MS VOA

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: PS-04 AP (10.5-11.0) (410-62932-1). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-194472 recovered above the upper control limit for Vinyl chloride, Acetone and Dibromochloromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: PS-04 AP (10.5-11.0) (410-62932-1).

Method 8260C: The continuing calibration verification (CCV) analyzed on preparation batch 410-193829 and analytical batch 410-194472 is compliant under 8260C/D method criteria for Carbon tetrachloride. The software does not display the % Drift data to the whole number as is listed in the method (i.e. limit of 20%). When applying the evaluation to a whole number, the check passes the criteria with a value of 20% Drift.

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

GC/MS Semi VOA

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

PCBs

Method 8082A: Surrogate recovery for the following sample was outside control limits: PS-04 AP (10.5-11.0) (410-62932-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: The continuing calibration verification (CCV) associated with batch 410-196799 recovered above the upper control limit for DCB Decachlorobiphenyl (Surr) on one column. Results are confirmed on both columns and reported from the passing column. PS-04 AP (10.5-11.0) (410-62932-1).

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

Pesticides

Method 8081B: Surrogate recovery for the following sample was outside control limits: PS-04 AP (10.5-11.0) (410-62932-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8081B: The following sample was diluted due to the nature of the sample matrix: PS-04 AP (10.5-11.0) (410-62932-1). Elevated reporting limits (RLs) are provided.

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

Metals

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.

Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

Job ID: 410-62932-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

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Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

Client Sample ID: PS-04 AP (10.5-11.0)

Lab Sample ID: 410-62932-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Ethylbenzene	82	J	390	31	ug/Kg	50	*	*	8260C	Total/NA
m&p-Xylene	310	J	390	77	ug/Kg	50	*	*	8260C	Total/NA
o-Xylene	44	J	390	31	ug/Kg	50	*	*	8260C	Total/NA
1,1'-Biphenyl	200		49	22	ug/Kg	1	*	*	8270D	Total/NA
2-Methylnaphthalene	930		22	6.7	ug/Kg	1	*	*	8270D	Total/NA
4-Methylphenol	130		67	22	ug/Kg	1	*	*	8270D	Total/NA
Acenaphthene	1800		22	4.5	ug/Kg	1	*	*	8270D	Total/NA
Acenaphthylene	510		22	5.4	ug/Kg	1	*	*	8270D	Total/NA
Anthracene	2400		22	4.5	ug/Kg	1	*	*	8270D	Total/NA
Benzo[a]pyrene	5100		22	4.5	ug/Kg	1	*	*	8270D	Total/NA
Benzo[g,h,i]perylene	2900		22	4.5	ug/Kg	1	*	*	8270D	Total/NA
Benzo[k]fluoranthene	2500		22	4.5	ug/Kg	1	*	*	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	99	J	220	89	ug/Kg	1	*	*	8270D	Total/NA
Carbazole	980		49	22	ug/Kg	1	*	*	8270D	Total/NA
Dibenz(a,h)anthracene	910		22	8.9	ug/Kg	1	*	*	8270D	Total/NA
Dibenzofuran	1200		49	22	ug/Kg	1	*	*	8270D	Total/NA
Fluorene	1900		22	4.5	ug/Kg	1	*	*	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	2800		22	5.4	ug/Kg	1	*	*	8270D	Total/NA
N-Nitrosodiphenylamine	150		49	22	ug/Kg	1	*	*	8270D	Total/NA
Naphthalene	670		22	8.9	ug/Kg	1	*	*	8270D	Total/NA
Benzo[a]anthracene - DL	5800		220	45	ug/Kg	10	*	*	8270D	Total/NA
Benzo[b]fluoranthene - DL	7100		220	45	ug/Kg	10	*	*	8270D	Total/NA
Chrysene - DL	6100		220	45	ug/Kg	10	*	*	8270D	Total/NA
Fluoranthene - DL	14000		220	45	ug/Kg	10	*	*	8270D	Total/NA
Phenanthrene - DL	12000		220	54	ug/Kg	10	*	*	8270D	Total/NA
Pyrene - DL	12000		220	45	ug/Kg	10	*	*	8270D	Total/NA
beta-BHC (1C)	4.3	J	6.7	2.9	ug/Kg	5	*	*	8081B	Total/NA
p,p'-DDD (2C)	4.9	J	11	2.2	ug/Kg	5	*	*	8081B	Total/NA
PCB-1254 (1C)	13	J	23	8.5	ug/Kg	1	*	*	8082A	Total/NA
Antimony	5.1		4.5	1.5	mg/Kg	1	*	*	6010D	Total/NA
Aluminum	8800		18	9.6	mg/Kg	1	*	*	6010D	Total/NA
Arsenic	11		2.7	1.3	mg/Kg	1	*	*	6010D	Total/NA
Barium	150	B	0.45	0.14	mg/Kg	1	*	*	6010D	Total/NA
Beryllium	0.43	J	0.45	0.090	mg/Kg	1	*	*	6010D	Total/NA
Cadmium	18		0.45	0.090	mg/Kg	1	*	*	6010D	Total/NA
Calcium	44000	^2	230	54	mg/Kg	5	*	*	6010D	Total/NA
Chromium	37		1.4	0.16	mg/Kg	1	*	*	6010D	Total/NA
Cobalt	23		0.45	0.13	mg/Kg	1	*	*	6010D	Total/NA
Copper	1200	^3+	1.8	0.70	mg/Kg	1	*	*	6010D	Total/NA
Iron	97000	^2	90	28	mg/Kg	5	*	*	6010D	Total/NA
Lead	390		1.4	0.54	mg/Kg	1	*	*	6010D	Total/NA
Magnesium	3000	^2	9.0	3.6	mg/Kg	1	*	*	6010D	Total/NA
Manganese	720		0.90	0.47	mg/Kg	1	*	*	6010D	Total/NA
Nickel	13		0.90	0.24	mg/Kg	1	*	*	6010D	Total/NA
Potassium	1500		45	18	mg/Kg	1	*	*	6010D	Total/NA
Selenium	7.5		4.5	1.4	mg/Kg	1	*	*	6010D	Total/NA
Silver	4.3	^5-	0.90	0.36	mg/Kg	1	*	*	6010D	Total/NA
Sodium	630		90	42	mg/Kg	1	*	*	6010D	Total/NA
Zinc	7400	^2	18	9.0	mg/Kg	10	*	*	6010D	Total/NA
Vanadium	86		0.90	0.39	mg/Kg	1	*	*	6010D	Total/NA
Mercury	0.55		0.080	0.033	mg/Kg	1	*	*	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

Client Sample ID: PS-04 AP (10.5-11.0)

Lab Sample ID: 410-62932-1

Date Collected: 11/10/21 08:10

Matrix: Solid

Date Received: 11/11/21 10:59

Percent Solids: 74.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	31	U	390	31	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
trans-1,3-Dichloropropene	39	U	390	39	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Ethylbenzene	82	J	390	31	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Styrene	31	U	390	31	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
1,4-Dichlorobenzene	31	U	390	31	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
1,2-Dibromoethane	31	U	390	31	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
1,2-Dichloroethane	46	U	390	46	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
4-Methyl-2-pentanone	77	U	770	77	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Methylcyclohexane	46	U	390	46	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Toluene	46	U	390	46	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Chlorobenzene	39	U	390	39	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Cyclohexane	39	U	390	39	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
1,2,4-Trichlorobenzene	390	U	770	390	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
1,4-Dioxane	2900	U	19000	2900	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Dibromochloromethane	150	U	390	150	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Tetrachloroethene	39	U	390	39	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
cis-1,2-Dichloroethene	39	U	390	39	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
trans-1,2-Dichloroethene	39	U	390	39	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Methyl tertiary butyl ether	39	U	390	39	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
m&p-Xylene	310	J	390	77	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
1,3-Dichlorobenzene	39	U	390	39	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Carbon tetrachloride	150	U	390	150	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
2-Hexanone	77	U	770	77	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Acetone	460	U	1500	460	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Chloroform	46	U	390	46	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Benzene	39	U	390	39	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
1,1,1-Trichloroethane	46	U	390	46	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Bromomethane	54	U	390	54	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Chloromethane	46	U	390	46	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Bromochloromethane	46	U	390	46	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Chloroethane	77	U	390	77	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Vinyl chloride	46	U	390	46	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Methylene Chloride	150	U	390	150	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Carbon disulfide	46	U	390	46	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Bromoform	390	U	770	390	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Bromodichloromethane	31	U	390	31	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
1,1-Dichloroethane	39	U	390	39	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
1,1-Dichloroethene	39	U	390	39	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Trichlorofluoromethane	54	U	390	54	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Dichlorodifluoromethane	46	U	390	46	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Freon 113	46	U	770	46	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
1,2-Dichloropropane	39	U	390	39	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
2-Butanone	150	U	770	150	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
1,1,2-Trichloroethane	39	U	390	39	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Trichloroethene	39	U	390	39	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Methyl acetate	77	U	390	77	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
1,1,1,2-Tetrachloroethane	31	U	390	31	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
1,2,3-Trichlorobenzene	390	U	770	390	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
o-Xylene	44	J	390	31	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

Client Sample ID: PS-04 AP (10.5-11.0)

Lab Sample ID: 410-62932-1

Date Collected: 11/10/21 08:10

Matrix: Solid

Date Received: 11/11/21 10:59

Percent Solids: 74.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	39	U	390	39	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
1,2-Dibromo-3-Chloropropane	77	U	390	77	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Isopropylbenzene	31	U	390	31	ug/Kg	☼	11/11/21 18:35	11/13/21 17:52	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		54 - 135				11/11/21 18:35	11/13/21 17:52	50
4-Bromofluorobenzene (Surr)	119		50 - 131				11/11/21 18:35	11/13/21 17:52	50
Dibromofluoromethane (Surr)	101		50 - 141				11/11/21 18:35	11/13/21 17:52	50
Toluene-d8 (Surr)	100		52 - 141				11/11/21 18:35	11/13/21 17:52	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	200		49	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
1,2,4,5-Tetrachlorobenzene	22	U	49	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
2,2'-oxybis[1-chloropropane]	27	U	58	27	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
2,3,4,6-Tetrachlorophenol	89	U	220	89	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
2,4,5-Trichlorophenol	22	U	49	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
2,4,6-Trichlorophenol	22	U	49	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
2,4-Dichlorophenol	27	U	58	27	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
2,4-Dimethylphenol	22	U	49	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
2,4-Dinitrophenol	220	U *	1300	220	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
2,4-Dinitrotoluene	45	U	220	45	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
2,6-Dinitrotoluene	22	U	49	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
2-Chloronaphthalene	18	U	45	18	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
2-Chlorophenol	22	U	49	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
2-Methylnaphthalene	930		22	6.7	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
2-Methylphenol	27	U	67	27	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
2-Nitroaniline	22	U	67	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
2-Nitrophenol	27	U	67	27	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
3,3'-Dichlorobenzidine	45	U	220	45	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
3-Nitroaniline	45	U	220	45	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
4,6-Dinitro-2-methylphenol	220	U *	670	220	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
4-Bromophenyl-phenylether	22	U	49	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
4-Chloro-3-methylphenol	27	U	67	27	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
4-Methylphenol	130		67	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
4-Nitroaniline	45	U	220	45	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
4-Nitrophenol	220	U	670	220	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Acenaphthene	1800		22	4.5	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Acenaphthylene	510		22	5.4	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Acetophenone	22	U	67	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Anthracene	2400		22	4.5	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Atrazine	89	U	220	89	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Benzaldehyde	45	U	220	45	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Benzo[a]pyrene	5100		22	4.5	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Benzo[g,h,i]perylene	2900		22	4.5	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Benzo[k]fluoranthene	2500		22	4.5	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Bis(2-chloroethoxy)methane	22	U	49	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Bis(2-chloroethyl)ether	22	U	49	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Bis(2-ethylhexyl) phthalate	99	J	220	89	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Butylbenzylphthalate	89	U	220	89	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1

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Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

Client Sample ID: PS-04 AP (10.5-11.0)

Lab Sample ID: 410-62932-1

Date Collected: 11/10/21 08:10

Matrix: Solid

Date Received: 11/11/21 10:59

Percent Solids: 74.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Caprolactam	45	U	220	45	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Carbazole	980		49	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Di-n-butyl phthalate	89	U	220	89	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Di-n-octyl phthalate	89	U	220	89	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Dibenz(a,h)anthracene	910		22	8.9	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Dibenzofuran	1200		49	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Diethyl phthalate	89	U	220	89	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Dimethyl phthalate	89	U	220	89	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Fluorene	1900		22	4.5	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Hexachlorobenzene	8.9	U	22	8.9	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Hexachlorobutadiene	27	U	67	27	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Hexachlorocyclopentadiene	220	U	670	220	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Hexachloroethane	45	U	220	45	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Indeno[1,2,3-cd]pyrene	2800		22	5.4	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Isophorone	22	U	89	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
N-Nitrosodi-n-propylamine	45	U	89	45	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
N-Nitrosodiphenylamine	150		49	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Naphthalene	670		22	8.9	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Nitrobenzene	22	U	49	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Phenol	22	U	49	22	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1
Pentachlorophenol	89	U	220	89	ug/Kg	☼	11/19/21 16:54	11/22/21 04:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	87		45 - 108	11/19/21 16:54	11/22/21 04:10	1
Nitrobenzene-d5 (Surr)	72		32 - 97	11/19/21 16:54	11/22/21 04:10	1
2-Fluorophenol (Surr)	73		26 - 96	11/19/21 16:54	11/22/21 04:10	1
2-Fluorobiphenyl (Surr)	76		39 - 100	11/19/21 16:54	11/22/21 04:10	1
2,4,6-Tribromophenol (Surr)	73		13 - 121	11/19/21 16:54	11/22/21 04:10	1
Phenol-d5 (Surr)	73		27 - 104	11/19/21 16:54	11/22/21 04:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	5800		220	45	ug/Kg	☼	11/19/21 16:54	11/23/21 01:34	10
Benzo[b]fluoranthene	7100		220	45	ug/Kg	☼	11/19/21 16:54	11/23/21 01:34	10
Chrysene	6100		220	45	ug/Kg	☼	11/19/21 16:54	11/23/21 01:34	10
Fluoranthene	14000		220	45	ug/Kg	☼	11/19/21 16:54	11/23/21 01:34	10
Phenanthrene	12000		220	54	ug/Kg	☼	11/19/21 16:54	11/23/21 01:34	10
Pyrene	12000		220	45	ug/Kg	☼	11/19/21 16:54	11/23/21 01:34	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	94		45 - 108	11/19/21 16:54	11/23/21 01:34	10
Nitrobenzene-d5 (Surr)	71		32 - 97	11/19/21 16:54	11/23/21 01:34	10
2-Fluorophenol (Surr)	72		26 - 96	11/19/21 16:54	11/23/21 01:34	10
2-Fluorobiphenyl (Surr)	79		39 - 100	11/19/21 16:54	11/23/21 01:34	10
2,4,6-Tribromophenol (Surr)	76		13 - 121	11/19/21 16:54	11/23/21 01:34	10
Phenol-d5 (Surr)	75		27 - 104	11/19/21 16:54	11/23/21 01:34	10

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	1.1	U	5.5	1.1	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

Client Sample ID: PS-04 AP (10.5-11.0)

Lab Sample ID: 410-62932-1

Date Collected: 11/10/21 08:10

Matrix: Solid

Date Received: 11/11/21 10:59

Percent Solids: 74.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC (1C)	1.1	U	5.5	1.1	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
alpha-Chlordane (1C)	1.1	U	5.5	1.1	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
beta-BHC (1C)	4.3	J	6.7	2.9	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
delta-BHC (2C)	3.0	U	6.7	3.0	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
Dieldrin (1C)	2.2	U	11	2.2	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
Endosulfan I (1C)	1.5	U	5.5	1.5	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
Endosulfan II (1C)	7.3	U	15	7.3	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
Endosulfan sulfate (1C)	2.2	U	11	2.2	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
Endrin (1C)	4.5	U	11	4.5	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
Endrin aldehyde (1C)	2.2	U	11	2.2	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
Endrin ketone (1C)	4.0	U	13	4.0	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
gamma-BHC (Lindane) (1C)	1.4	U	5.5	1.4	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
gamma-Chlordane (1C)	1.7	U	5.5	1.7	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
Heptachlor (1C)	2.1	U	5.5	2.1	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
Heptachlor epoxide (1C)	1.1	U	5.5	1.1	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
Methoxychlor (1C)	12	U	45	12	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
Toxaphene (1C)	93	U	220	93	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
p,p'-DDD (2C)	4.9	J	11	2.2	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
p,p'-DDE (1C)	2.2	U	11	2.2	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5
p,p'-DDT (1C)	5.3	U	11	5.3	ug/Kg	☼	11/18/21 09:36	11/19/21 16:45	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	176	S1+	54 - 143	11/18/21 09:36	11/19/21 16:45	5
DCB Decachlorobiphenyl (Surr) (2C)	181	S1+	54 - 143	11/18/21 09:36	11/19/21 16:45	5
Tetrachloro-m-xylene (Surr) (1C)	59		20 - 131	11/18/21 09:36	11/19/21 16:45	5
Tetrachloro-m-xylene (Surr) (2C)	71		20 - 131	11/18/21 09:36	11/19/21 16:45	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	7.1	U	23	7.1	ug/Kg	☼	11/18/21 09:36	11/19/21 12:19	1
PCB-1221 (1C)	7.1	U	23	7.1	ug/Kg	☼	11/18/21 09:36	11/19/21 12:19	1
PCB-1232 (1C)	7.1	U	23	7.1	ug/Kg	☼	11/18/21 09:36	11/19/21 12:19	1
PCB-1242 (1C)	7.1	U	23	7.1	ug/Kg	☼	11/18/21 09:36	11/19/21 12:19	1
PCB-1248 (1C)	7.1	U	23	7.1	ug/Kg	☼	11/18/21 09:36	11/19/21 12:19	1
PCB-1254 (1C)	13	J	23	8.5	ug/Kg	☼	11/18/21 09:36	11/19/21 12:19	1
PCB-1260 (1C)	8.5	U	23	8.5	ug/Kg	☼	11/18/21 09:36	11/19/21 12:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	187	S1+	45 - 143	11/18/21 09:36	11/19/21 12:19	1
DCB Decachlorobiphenyl (Surr) (2C)	208	S1+	45 - 143	11/18/21 09:36	11/19/21 12:19	1
Tetrachloro-m-xylene (1C)	78		53 - 140	11/18/21 09:36	11/19/21 12:19	1
Tetrachloro-m-xylene (2C)	77		53 - 140	11/18/21 09:36	11/19/21 12:19	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	5.1		4.5	1.5	mg/Kg	☼	11/12/21 04:25	11/16/21 17:30	1
Aluminum	8800		18	9.6	mg/Kg	☼	11/12/21 04:25	11/16/21 17:30	1
Arsenic	11		2.7	1.3	mg/Kg	☼	11/12/21 04:25	11/16/21 17:30	1
Barium	150	B	0.45	0.14	mg/Kg	☼	11/12/21 04:25	11/17/21 13:20	1
Beryllium	0.43	J	0.45	0.090	mg/Kg	☼	11/12/21 04:25	11/16/21 17:30	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

Client Sample ID: PS-04 AP (10.5-11.0)

Lab Sample ID: 410-62932-1

Date Collected: 11/10/21 08:10

Matrix: Solid

Date Received: 11/11/21 10:59

Percent Solids: 74.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	18		0.45	0.090	mg/Kg	☼	11/12/21 04:25	11/16/21 17:30	1
Calcium	44000	^2	230	54	mg/Kg	☼	11/12/21 04:25	11/17/21 13:23	5
Chromium	37		1.4	0.16	mg/Kg	☼	11/12/21 04:25	11/16/21 17:30	1
Cobalt	23		0.45	0.13	mg/Kg	☼	11/12/21 04:25	11/16/21 17:30	1
Copper	1200	^3+	1.8	0.70	mg/Kg	☼	11/12/21 04:25	11/16/21 17:30	1
Iron	97000	^2	90	28	mg/Kg	☼	11/12/21 04:25	11/17/21 13:23	5
Lead	390		1.4	0.54	mg/Kg	☼	11/12/21 04:25	11/16/21 17:30	1
Magnesium	3000	^2	9.0	3.6	mg/Kg	☼	11/12/21 04:25	11/16/21 17:30	1
Manganese	720		0.90	0.47	mg/Kg	☼	11/12/21 04:25	11/16/21 17:30	1
Nickel	13		0.90	0.24	mg/Kg	☼	11/12/21 04:25	11/16/21 17:30	1
Potassium	1500		45	18	mg/Kg	☼	11/12/21 04:25	11/18/21 12:41	1
Selenium	7.5		4.5	1.4	mg/Kg	☼	11/12/21 04:25	11/16/21 17:30	1
Silver	4.3	^5-	0.90	0.36	mg/Kg	☼	11/12/21 04:25	11/16/21 17:30	1
Sodium	630		90	42	mg/Kg	☼	11/12/21 04:25	11/17/21 13:20	1
Thallium	1.2	U ^5+	2.7	1.2	mg/Kg	☼	11/12/21 04:25	11/18/21 12:41	1
Zinc	7400	^2	18	9.0	mg/Kg	☼	11/12/21 04:25	11/17/21 13:27	10
Vanadium	86		0.90	0.39	mg/Kg	☼	11/12/21 04:25	11/16/21 17:30	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.55		0.080	0.033	mg/Kg	☼	11/12/21 04:58	11/16/21 19:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	25.8		1.0	1.0	%			11/11/21 17:46	1

DRAFT

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (54-135)	BFB (50-131)	DBFM (50-141)	TOL (52-141)
410-62932-1	PS-04 AP (10.5-11.0)	107	119	101	100
LCS 410-194472/4	Lab Control Sample	101	94	99	95
LCS 410-194472/5	Lab Control Sample Dup	102	95	99	95
MB 410-194472/7	Method Blank	104	94	98	97

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (45-108)	NBZ (32-97)	2FP (26-96)	FBP (39-100)	TBP (13-121)	PHL (27-104)
410-62932-1	PS-04 AP (10.5-11.0)	87	72	73	76	73	73
410-62932-1 - DL	PS-04 AP (10.5-11.0)	94	71	72	79	76	75
LCS 410-197019/2-A	Lab Control Sample	103	78	77	88	98	81
MB 410-197019/1-A	Method Blank	110 S1+	83	84	97	100	83

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (54-143)	DCB2 (54-143)	TCX1 (20-131)	TCX2 (20-131)
410-62932-1	PS-04 AP (10.5-11.0)	176 S1+	181 S1+	59	71
LCS 410-196203/2-A	Lab Control Sample	77	79	63	63
MB 410-196203/1-A	Method Blank	82	90	74	73

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (45-143)	DCB2 (45-143)	TCX1 (53-140)	TCX2 (53-140)
410-62932-1	PS-04 AP (10.5-11.0)	187 S1+	208 S1+	78	77
LCS 410-196202/2-A	Lab Control Sample	112	102	94	85

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1	DCB2	TCX1	TCX2
		(45-143)	(45-143)	(53-140)	(53-140)
MB 410-196202/1-A	Method Blank	127	116	101	91

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

DRAFT

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

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

Lab Sample ID: MB 410-194472/7

Matrix: Solid

Analysis Batch: 194472

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	20	U	250	20	ug/Kg			11/13/21 13:24	50
trans-1,3-Dichloropropene	25	U	250	25	ug/Kg			11/13/21 13:24	50
Ethylbenzene	20	U	250	20	ug/Kg			11/13/21 13:24	50
Styrene	20	U	250	20	ug/Kg			11/13/21 13:24	50
1,4-Dichlorobenzene	20	U	250	20	ug/Kg			11/13/21 13:24	50
1,2-Dibromoethane	20	U	250	20	ug/Kg			11/13/21 13:24	50
1,2-Dichloroethane	30	U	250	30	ug/Kg			11/13/21 13:24	50
4-Methyl-2-pentanone	50	U	500	50	ug/Kg			11/13/21 13:24	50
Methylcyclohexane	30	U	250	30	ug/Kg			11/13/21 13:24	50
Toluene	30	U	250	30	ug/Kg			11/13/21 13:24	50
Chlorobenzene	25	U	250	25	ug/Kg			11/13/21 13:24	50
Cyclohexane	25	U	250	25	ug/Kg			11/13/21 13:24	50
1,2,4-Trichlorobenzene	250	U	500	250	ug/Kg			11/13/21 13:24	50
1,4-Dioxane	1900	U	13000	1900	ug/Kg			11/13/21 13:24	50
Dibromochloromethane	100	U	250	100	ug/Kg			11/13/21 13:24	50
Tetrachloroethene	25	U	250	25	ug/Kg			11/13/21 13:24	50
cis-1,2-Dichloroethene	25	U	250	25	ug/Kg			11/13/21 13:24	50
trans-1,2-Dichloroethene	25	U	250	25	ug/Kg			11/13/21 13:24	50
Methyl tertiary butyl ether	25	U	250	25	ug/Kg			11/13/21 13:24	50
m&p-Xylene	50	U	250	50	ug/Kg			11/13/21 13:24	50
1,3-Dichlorobenzene	25	U	250	25	ug/Kg			11/13/21 13:24	50
Carbon tetrachloride	100	U	250	100	ug/Kg			11/13/21 13:24	50
2-Hexanone	50	U	500	50	ug/Kg			11/13/21 13:24	50
Acetone	300	U	1000	300	ug/Kg			11/13/21 13:24	50
Chloroform	30	U	250	30	ug/Kg			11/13/21 13:24	50
Benzene	25	U	250	25	ug/Kg			11/13/21 13:24	50
1,1,1-Trichloroethane	30	U	250	30	ug/Kg			11/13/21 13:24	50
Bromomethane	35	U	250	35	ug/Kg			11/13/21 13:24	50
Chloromethane	30	U	250	30	ug/Kg			11/13/21 13:24	50
Bromochloromethane	30	U	250	30	ug/Kg			11/13/21 13:24	50
Chloroethane	50	U	250	50	ug/Kg			11/13/21 13:24	50
Vinyl chloride	30	U	250	30	ug/Kg			11/13/21 13:24	50
Methylene Chloride	100	U	250	100	ug/Kg			11/13/21 13:24	50
Carbon disulfide	30	U	250	30	ug/Kg			11/13/21 13:24	50
Bromoform	250	U	500	250	ug/Kg			11/13/21 13:24	50
Bromodichloromethane	20	U	250	20	ug/Kg			11/13/21 13:24	50
1,1-Dichloroethane	25	U	250	25	ug/Kg			11/13/21 13:24	50
1,1-Dichloroethene	25	U	250	25	ug/Kg			11/13/21 13:24	50
Trichlorofluoromethane	35	U	250	35	ug/Kg			11/13/21 13:24	50
Dichlorodifluoromethane	30	U	250	30	ug/Kg			11/13/21 13:24	50
Freon 113	30	U	500	30	ug/Kg			11/13/21 13:24	50
1,2-Dichloropropane	25	U	250	25	ug/Kg			11/13/21 13:24	50
2-Butanone	100	U	500	100	ug/Kg			11/13/21 13:24	50
1,1,2-Trichloroethane	25	U	250	25	ug/Kg			11/13/21 13:24	50
Trichloroethene	25	U	250	25	ug/Kg			11/13/21 13:24	50
Methyl acetate	50	U	250	50	ug/Kg			11/13/21 13:24	50
1,1,2,2-Tetrachloroethane	20	U	250	20	ug/Kg			11/13/21 13:24	50
1,2,3-Trichlorobenzene	250	U	500	250	ug/Kg			11/13/21 13:24	50

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

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

Lab Sample ID: MB 410-194472/7

Matrix: Solid

Analysis Batch: 194472

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	20	U	250	20	ug/Kg			11/13/21 13:24	50
1,2-Dichlorobenzene	25	U	250	25	ug/Kg			11/13/21 13:24	50
1,2-Dibromo-3-Chloropropane	50	U	250	50	ug/Kg			11/13/21 13:24	50
Isopropylbenzene	20	U	250	20	ug/Kg			11/13/21 13:24	50

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	104		54 - 135		11/13/21 13:24	50
4-Bromofluorobenzene (Surr)	94		50 - 131		11/13/21 13:24	50
Dibromofluoromethane (Surr)	98		50 - 141		11/13/21 13:24	50
Toluene-d8 (Surr)	97		52 - 141		11/13/21 13:24	50

Lab Sample ID: LCS 410-194472/4

Matrix: Solid

Analysis Batch: 194472

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,3-Dichloropropene	1000	1050		ug/Kg		105	66 - 120
trans-1,3-Dichloropropene	1000	1040		ug/Kg		104	68 - 122
Ethylbenzene	1000	986		ug/Kg		99	78 - 120
Styrene	1000	1000		ug/Kg		100	76 - 120
1,4-Dichlorobenzene	1000	1000		ug/Kg		100	80 - 120
1,2-Dibromoethane	1000	988		ug/Kg		99	76 - 120
1,2-Dichloroethane	1000	917		ug/Kg		92	71 - 128
4-Methyl-2-pentanone	12500	10100		ug/Kg		81	67 - 128
Methylcyclohexane	1000	1040		ug/Kg		104	61 - 124
Toluene	1000	989		ug/Kg		99	80 - 120
Chlorobenzene	1000	1020		ug/Kg		102	80 - 120
Cyclohexane	1000	934		ug/Kg		93	58 - 126
1,2,4-Trichlorobenzene	1000	1000		ug/Kg		100	56 - 130
1,4-Dioxane	25000	28400		ug/Kg		113	62 - 131
Dibromochloromethane	1000	1120		ug/Kg		112	69 - 125
Tetrachloroethene	1000	1040		ug/Kg		104	73 - 120
cis-1,2-Dichloroethene	1000	1090		ug/Kg		109	80 - 125
trans-1,2-Dichloroethene	1000	1070		ug/Kg		107	80 - 126
Methyl tertiary butyl ether	1000	918		ug/Kg		92	72 - 120
m&p-Xylene	2000	2050		ug/Kg		103	80 - 120
1,3-Dichlorobenzene	1000	992		ug/Kg		99	75 - 120
Carbon tetrachloride	1000	1150		ug/Kg		115	64 - 134
2-Hexanone	12500	9090		ug/Kg		73	54 - 140
Acetone	12500	11400		ug/Kg		91	41 - 150
Chloroform	1000	995		ug/Kg		99	80 - 120
Benzene	1000	1020		ug/Kg		102	80 - 120
1,1,1-Trichloroethane	1000	1050		ug/Kg		105	69 - 123
Bromomethane	1000	1010		ug/Kg		101	45 - 140
Chloromethane	1000	1140		ug/Kg		114	56 - 120
Bromochloromethane	1000	1080		ug/Kg		108	72 - 124
Chloroethane	1000	952		ug/Kg		95	43 - 135
Vinyl chloride	1000	1190		ug/Kg		119	52 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

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

Lab Sample ID: LCS 410-194472/4

Matrix: Solid

Analysis Batch: 194472

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	1000	1050		ug/Kg		105	76 - 122
Carbon disulfide	1000	1120		ug/Kg		112	64 - 133
Bromoform	1000	1060		ug/Kg		106	51 - 127
Bromodichloromethane	1000	1060		ug/Kg		106	70 - 120
1,1-Dichloroethane	1000	965		ug/Kg		97	79 - 120
1,1-Dichloroethene	1000	1130		ug/Kg		113	73 - 129
Trichlorofluoromethane	1000	1040		ug/Kg		104	55 - 134
Dichlorodifluoromethane	1000	988		ug/Kg		99	21 - 127
Freon 113	1000	1100		ug/Kg		110	64 - 135
1,2-Dichloropropane	1000	978		ug/Kg		98	80 - 120
2-Butanone	12500	9510		ug/Kg		76	57 - 128
1,1,2-Trichloroethane	1000	1020		ug/Kg		102	80 - 120
Trichloroethene	1000	1040		ug/Kg		104	80 - 120
Methyl acetate	1000	861		ug/Kg		86	67 - 128
1,1,1,2-Tetrachloroethane	1000	942		ug/Kg		94	69 - 125
1,2,3-Trichlorobenzene	1000	998		ug/Kg		100	57 - 131
o-Xylene	1000	1000		ug/Kg		100	75 - 120
1,2-Dichlorobenzene	1000	973		ug/Kg		97	76 - 120
1,2-Dibromo-3-Chloropropane	1000	789		ug/Kg		79	48 - 134
Isopropylbenzene	1000	1020		ug/Kg		102	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		54 - 135
4-Bromofluorobenzene (Surr)	94		50 - 131
Dibromofluoromethane (Surr)	99		50 - 141
Toluene-d8 (Surr)	95		52 - 141

Lab Sample ID: LCSD 410-194472/5

Matrix: Solid

Analysis Batch: 194472

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	1000	1050		ug/Kg		105	66 - 120	0	30
trans-1,3-Dichloropropene	1000	1040		ug/Kg		104	68 - 122	0	30
Ethylbenzene	1000	996		ug/Kg		100	78 - 120	1	30
Styrene	1000	1000		ug/Kg		100	76 - 120	0	30
1,4-Dichlorobenzene	1000	999		ug/Kg		100	80 - 120	0	30
1,2-Dibromoethane	1000	1010		ug/Kg		101	76 - 120	2	30
1,2-Dichloroethane	1000	929		ug/Kg		93	71 - 128	1	30
4-Methyl-2-pentanone	12500	10300		ug/Kg		82	67 - 128	2	30
Methylcyclohexane	1000	1040		ug/Kg		104	61 - 124	0	30
Toluene	1000	997		ug/Kg		100	80 - 120	1	30
Chlorobenzene	1000	1020		ug/Kg		102	80 - 120	1	30
Cyclohexane	1000	933		ug/Kg		93	58 - 126	0	30
1,2,4-Trichlorobenzene	1000	994		ug/Kg		99	56 - 130	1	30
1,4-Dioxane	25000	30100		ug/Kg		120	62 - 131	6	30
Dibromochloromethane	1000	1120		ug/Kg		112	69 - 125	1	30
Tetrachloroethene	1000	1040		ug/Kg		104	73 - 120	0	30

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

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

Lab Sample ID: LCSD 410-194472/5

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 194472

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Added	Result	Qualifier				Limits		
cis-1,2-Dichloroethene	1000	1100		ug/Kg		110	80 - 125	1	30
trans-1,2-Dichloroethene	1000	1060		ug/Kg		106	80 - 126	1	30
Methyl tertiary butyl ether	1000	932		ug/Kg		93	72 - 120	1	30
m&p-Xylene	2000	2050		ug/Kg		103	80 - 120	0	30
1,3-Dichlorobenzene	1000	1000		ug/Kg		100	75 - 120	1	30
Carbon tetrachloride	1000	1130		ug/Kg		113	64 - 134	1	30
2-Hexanone	12500	9500		ug/Kg		76	54 - 140	4	30
Acetone	12500	12500		ug/Kg		100	41 - 150	9	30
Chloroform	1000	994		ug/Kg		99	80 - 120	0	30
Benzene	1000	1010		ug/Kg		101	80 - 120	0	30
1,1,1-Trichloroethane	1000	1050		ug/Kg		105	69 - 123	0	30
Bromomethane	1000	1030		ug/Kg		103	45 - 140	2	30
Chloromethane	1000	1110		ug/Kg		111	56 - 120	3	30
Bromochloromethane	1000	1100		ug/Kg		110	72 - 124	1	30
Chloroethane	1000	1040		ug/Kg		104	43 - 135	9	30
Vinyl chloride	1000	1190		ug/Kg		119	52 - 120	0	30
Methylene Chloride	1000	1060		ug/Kg		106	76 - 122	1	30
Carbon disulfide	1000	1120		ug/Kg		112	64 - 133	0	30
Bromoform	1000	1070		ug/Kg		107	51 - 127	1	30
Bromodichloromethane	1000	1070		ug/Kg		107	70 - 120	1	30
1,1-Dichloroethane	1000	967		ug/Kg		97	79 - 120	0	30
1,1-Dichloroethene	1000	1110		ug/Kg		111	73 - 129	2	30
Trichlorofluoromethane	1000	1040		ug/Kg		104	55 - 134	0	30
Dichlorodifluoromethane	1000	978		ug/Kg		98	21 - 127	1	30
Freon 113	1000	1090		ug/Kg		109	64 - 135	0	30
1,2-Dichloropropane	1000	974		ug/Kg		97	80 - 120	0	30
2-Butanone	12500	10300		ug/Kg		83	57 - 128	8	30
1,1,2-Trichloroethane	1000	1020		ug/Kg		102	80 - 120	0	30
Trichloroethene	1000	1040		ug/Kg		104	80 - 120	1	30
Methyl acetate	1000	903		ug/Kg		90	67 - 128	5	30
1,1,2,2-Tetrachloroethane	1000	978		ug/Kg		98	69 - 125	4	30
1,2,3-Trichlorobenzene	1000	981		ug/Kg		98	57 - 131	2	30
o-Xylene	1000	1010		ug/Kg		101	75 - 120	1	30
1,2-Dichlorobenzene	1000	987		ug/Kg		99	76 - 120	1	30
1,2-Dibromo-3-Chloropropane	1000	812		ug/Kg		81	48 - 134	3	30
Isopropylbenzene	1000	1030		ug/Kg		103	77 - 120	1	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	102		54 - 135
4-Bromofluorobenzene (Surr)	95		50 - 131
Dibromofluoromethane (Surr)	99		50 - 141
Toluene-d8 (Surr)	95		52 - 141

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

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

Lab Sample ID: MB 410-197019/1-A
Matrix: Solid
Analysis Batch: 197305

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 197019

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1'-Biphenyl	17	U	37	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
1,2,4,5-Tetrachlorobenzene	17	U	37	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
2,2'-oxybis[1-chloropropane]	20	U	43	20	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
2,3,4,6-Tetrachlorophenol	67	U	170	67	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
2,4,5-Trichlorophenol	17	U	37	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
2,4,6-Trichlorophenol	17	U	37	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
2,4-Dichlorophenol	20	U	43	20	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
2,4-Dimethylphenol	17	U	37	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
2,4-Dinitrophenol	170	U	1000	170	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
2,4-Dinitrotoluene	33	U	170	33	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
2,6-Dinitrotoluene	17	U	37	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
2-Chloronaphthalene	13	U	33	13	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
2-Chlorophenol	17	U	37	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
2-Methylnaphthalene	5.0	U	17	5.0	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
2-Methylphenol	20	U	50	20	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
2-Nitroaniline	17	U	50	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
2-Nitrophenol	20	U	50	20	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
3,3'-Dichlorobenzidine	33	U	170	33	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
3-Nitroaniline	33	U	170	33	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
4,6-Dinitro-2-methylphenol	170	U	500	170	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
4-Bromophenyl-phenylether	17	U	37	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
4-Chloro-3-methylphenol	20	U	50	20	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
4-Methylphenol	17	U	50	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
4-Nitroaniline	33	U	170	33	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
4-Nitrophenol	170	U	500	170	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Acenaphthene	3.3	U	17	3.3	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Acenaphthylene	4.0	U	17	4.0	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Acetophenone	17	U	50	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Anthracene	3.3	U	17	3.3	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Atrazine	67	U	170	67	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Benzaldehyde	33	U	170	33	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Benzo[a]anthracene	3.3	U	17	3.3	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Benzo[a]pyrene	3.3	U	17	3.3	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Benzo[b]fluoranthene	3.3	U	17	3.3	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Benzo[g,h,i]perylene	3.3	U	17	3.3	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Benzo[k]fluoranthene	3.3	U	17	3.3	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Bis(2-chloroethoxy)methane	17	U	37	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Bis(2-chloroethyl)ether	17	U	37	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Bis(2-ethylhexyl) phthalate	67	U	170	67	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Butylbenzylphthalate	67	U	170	67	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Caprolactam	33	U	170	33	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Carbazole	17	U	37	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Chrysene	3.3	U	17	3.3	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Di-n-butyl phthalate	67	U	170	67	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Di-n-octyl phthalate	67	U	170	67	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Dibenz(a,h)anthracene	6.7	U	17	6.7	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Dibenzofuran	17	U	37	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Diethyl phthalate	67	U	170	67	ug/Kg		11/19/21 16:54	11/21/21 21:31	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

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

Lab Sample ID: MB 410-197019/1-A

Matrix: Solid

Analysis Batch: 197305

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 197019

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dimethyl phthalate	67	U	170	67	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Fluoranthene	3.3	U	17	3.3	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Fluorene	3.3	U	17	3.3	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Hexachlorobenzene	6.7	U	17	6.7	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Hexachlorobutadiene	20	U	50	20	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Hexachlorocyclopentadiene	170	U	500	170	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Hexachloroethane	33	U	170	33	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Indeno[1,2,3-cd]pyrene	4.0	U	17	4.0	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Isophorone	17	U	67	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
N-Nitrosodi-n-propylamine	33	U	67	33	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
N-Nitrosodiphenylamine	17	U	37	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Naphthalene	6.7	U	17	6.7	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Nitrobenzene	17	U	37	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Phenanthrene	4.0	U	17	4.0	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Phenol	17	U	37	17	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Pyrene	3.3	U	17	3.3	ug/Kg		11/19/21 16:54	11/21/21 21:31	1
Pentachlorophenol	67	U	170	67	ug/Kg		11/19/21 16:54	11/21/21 21:31	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
p-Terphenyl-d14 (Surr)	110	S1+	45 - 108	11/19/21 16:54	11/21/21 21:31	1
Nitrobenzene-d5 (Surr)	83		32 - 97	11/19/21 16:54	11/21/21 21:31	1
2-Fluorophenol (Surr)	84		26 - 96	11/19/21 16:54	11/21/21 21:31	1
2-Fluorobiphenyl (Surr)	97		39 - 100	11/19/21 16:54	11/21/21 21:31	1
2,4,6-Tribromophenol (Surr)	100		13 - 121	11/19/21 16:54	11/21/21 21:31	1
Phenol-d5 (Surr)	83		27 - 104	11/19/21 16:54	11/21/21 21:31	1

Lab Sample ID: LCS 410-197019/2-A

Matrix: Solid

Analysis Batch: 197305

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 197019

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	1670	1500		ug/Kg		90	60 - 120
2,2'-oxybis[1-chloropropane]	1670	1130		ug/Kg		68	48 - 120
2,3,4,6-Tetrachlorophenol	1670	1780		ug/Kg		107	59 - 120
2,4,5-Trichlorophenol	1670	1760		ug/Kg		105	61 - 120
2,4,6-Trichlorophenol	1670	1850		ug/Kg		111	59 - 120
2,4-Dichlorophenol	1670	1510		ug/Kg		91	62 - 120
2,4-Dimethylphenol	1670	1480		ug/Kg		89	65 - 120
2,4-Dinitrophenol	3330	4900	*+	ug/Kg		147	44 - 120
2,4-Dinitrotoluene	1670	1670		ug/Kg		100	68 - 120
2,6-Dinitrotoluene	1670	1650		ug/Kg		99	67 - 120
2-Chloronaphthalene	1670	1350		ug/Kg		81	61 - 120
2-Chlorophenol	1670	1240		ug/Kg		75	59 - 120
2-Methylnaphthalene	1670	1270		ug/Kg		76	63 - 120
2-Methylphenol	1670	1350		ug/Kg		81	63 - 120
2-Nitroaniline	1670	1500		ug/Kg		90	64 - 120
2-Nitrophenol	1670	1530		ug/Kg		92	55 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

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

Lab Sample ID: LCS 410-197019/2-A

Matrix: Solid

Analysis Batch: 197305

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 197019

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3,3'-Dichlorobenzidine	3330	1940		ug/Kg		58	19 - 120
3-Nitroaniline	1670	962		ug/Kg		58	31 - 120
4,6-Dinitro-2-methylphenol	3330	4600	*+	ug/Kg		138	59 - 120
4-Bromophenyl-phenylether	1670	1550		ug/Kg		93	65 - 120
4-Chloro-3-methylphenol	1670	1430		ug/Kg		86	67 - 120
4-Methylphenol	1670	1160		ug/Kg		70	56 - 120
4-Nitroaniline	1670	1360		ug/Kg		82	59 - 120
4-Nitrophenol	3330	3620		ug/Kg		109	58 - 120
Acenaphthene	1670	1300		ug/Kg		78	61 - 120
Acenaphthylene	1670	1420		ug/Kg		85	69 - 120
Acetophenone	1670	1200		ug/Kg		72	54 - 120
Anthracene	1670	1410		ug/Kg		85	75 - 120
Atrazine	1670	1420		ug/Kg		85	63 - 127
Benzaldehyde	1670	1090		ug/Kg		65	25 - 120
Benzo[a]anthracene	1670	1550		ug/Kg		93	73 - 120
Benzo[a]pyrene	1670	1530		ug/Kg		92	80 - 123
Benzo[b]fluoranthene	1670	1590		ug/Kg		95	63 - 120
Benzo[g,h,i]perylene	1670	1650		ug/Kg		99	77 - 120
Benzo[k]fluoranthene	1670	1800		ug/Kg		108	68 - 120
Bis(2-chloroethoxy)methane	1670	1420		ug/Kg		85	55 - 120
Bis(2-chloroethyl)ether	1670	1240		ug/Kg		74	49 - 120
Bis(2-ethylhexyl) phthalate	1670	1490		ug/Kg		89	65 - 120
Butylbenzylphthalate	1670	1490		ug/Kg		90	66 - 120
Caprolactam	1670	1380		ug/Kg		83	54 - 120
Carbazole	1670	1430		ug/Kg		86	74 - 120
Chrysene	1670	1450		ug/Kg		87	66 - 120
Di-n-butyl phthalate	1670	1570		ug/Kg		94	65 - 120
Di-n-octyl phthalate	1670	1760		ug/Kg		106	60 - 125
Dibenz(a,h)anthracene	1670	1550		ug/Kg		93	72 - 120
Dibenzofuran	1670	1490		ug/Kg		89	68 - 120
Diethyl phthalate	1670	1510		ug/Kg		90	65 - 120
Dimethyl phthalate	1670	1570		ug/Kg		94	67 - 120
Fluoranthene	1670	1450		ug/Kg		87	71 - 120
Fluorene	1670	1430		ug/Kg		86	68 - 120
Hexachlorobenzene	1670	1450		ug/Kg		87	58 - 120
Hexachlorobutadiene	1670	1600		ug/Kg		96	48 - 120
Hexachlorocyclopentadiene	1670	1670		ug/Kg		100	43 - 120
Hexachloroethane	1670	1140		ug/Kg		69	48 - 120
Indeno[1,2,3-cd]pyrene	1670	1540		ug/Kg		93	71 - 122
Isophorone	1670	1380		ug/Kg		83	62 - 120
N-Nitrosodi-n-propylamine	1670	1190		ug/Kg		72	55 - 120
N-Nitrosodiphenylamine	1420	1260		ug/Kg		89	71 - 120
Naphthalene	1670	1250		ug/Kg		75	60 - 120
Nitrobenzene	1670	1330		ug/Kg		80	56 - 120
Phenanthrene	1670	1420		ug/Kg		85	74 - 120
Phenol	1670	1220		ug/Kg		73	57 - 120
Pyrene	1670	1470		ug/Kg		88	70 - 120
Pentachlorophenol	3330	3560		ug/Kg		107	41 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

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

Lab Sample ID: LCS 410-197019/2-A

Matrix: Solid

Analysis Batch: 197305

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 197019

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl-d14 (Surr)	103		45 - 108
Nitrobenzene-d5 (Surr)	78		32 - 97
2-Fluorophenol (Surr)	77		26 - 96
2-Fluorobiphenyl (Surr)	88		39 - 100
2,4,6-Tribromophenol (Surr)	98		13 - 121
Phenol-d5 (Surr)	81		27 - 104

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-196203/1-A

Matrix: Solid

Analysis Batch: 196754

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 196203

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	0.17	U	0.83	0.17	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
alpha-BHC (1C)	0.17	U	0.83	0.17	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
alpha-Chlordane (1C)	0.17	U	0.83	0.17	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
beta-BHC (1C)	0.44	U	1.0	0.44	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
delta-BHC (1C)	0.45	U	1.0	0.45	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Dieldrin (1C)	0.33	U	1.7	0.33	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Endosulfan I (1C)	0.22	U	0.83	0.22	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Endosulfan II (1C)	1.1	U	2.3	1.1	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Endosulfan sulfate (1C)	0.33	U	1.7	0.33	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Endrin (1C)	0.68	U	1.7	0.68	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Endrin aldehyde (1C)	0.33	U	1.7	0.33	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Endrin ketone (1C)	0.60	U	2.0	0.60	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
gamma-BHC (Lindane) (1C)	0.21	U	0.83	0.21	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
gamma-Chlordane (1C)	0.25	U	0.83	0.25	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Heptachlor (1C)	0.31	U	0.83	0.31	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Heptachlor epoxide (1C)	0.17	U	0.83	0.17	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Methoxychlor (1C)	1.8	U	6.7	1.8	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
Toxaphene (1C)	14	U	33	14	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
p,p'-DDD (1C)	0.33	U	1.7	0.33	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
p,p'-DDE (1C)	0.33	U	1.7	0.33	ug/Kg		11/18/21 09:36	11/19/21 11:45	1
p,p'-DDT (1C)	0.79	U	1.7	0.79	ug/Kg		11/18/21 09:36	11/19/21 11:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	82		54 - 143	11/18/21 09:36	11/19/21 11:45	1
DCB Decachlorobiphenyl (Surr) (2C)	90		54 - 143	11/18/21 09:36	11/19/21 11:45	1
Tetrachloro-m-xylene (Surr) (1C)	74		20 - 131	11/18/21 09:36	11/19/21 11:45	1
Tetrachloro-m-xylene (Surr) (2C)	73		20 - 131	11/18/21 09:36	11/19/21 11:45	1

Lab Sample ID: LCS 410-196203/2-A

Matrix: Solid

Analysis Batch: 196754

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 196203

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin (2C)	3.38	2.89		ug/Kg		86	56 - 134

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

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

Lab Sample ID: LCS 410-196203/2-A

Matrix: Solid

Analysis Batch: 196754

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 196203

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha-BHC (2C)	3.38	2.99		ug/Kg		88	55 - 135
beta-BHC (2C)	3.33	3.04		ug/Kg		91	50 - 132
delta-BHC (1C)	3.33	3.14		ug/Kg		94	47 - 141
Dieldrin (1C)	6.67	5.96		ug/Kg		89	54 - 136
Endosulfan I (2C)	3.38	2.97		ug/Kg		88	51 - 124
Endosulfan II (1C)	6.71	6.05		ug/Kg		90	56 - 125
Endosulfan sulfate (2C)	6.71	6.19		ug/Kg		92	56 - 125
Endrin (2C)	6.67	6.39		ug/Kg		96	56 - 129
Endrin aldehyde (2C)	6.71	5.49		ug/Kg		82	46 - 133
Endrin ketone (2C)	6.67	5.76		ug/Kg		86	55 - 128
gamma-BHC (Lindane) (1C)	3.33	2.90		ug/Kg		87	52 - 138
Heptachlor (2C)	3.38	2.96		ug/Kg		88	52 - 139
Heptachlor epoxide (2C)	3.33	3.01		ug/Kg		90	55 - 133
Methoxychlor (2C)	33.6	31.8		ug/Kg		95	54 - 148
p,p'-DDD (2C)	6.71	6.10		ug/Kg		91	59 - 135
p,p'-DDE (2C)	6.71	6.00		ug/Kg		89	57 - 135
p,p'-DDT (1C)	6.71	6.42		ug/Kg		96	53 - 151

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr) (1C)	77		54 - 143
DCB Decachlorobiphenyl (Surr) (2C)	79		54 - 143
Tetrachloro-m-xylene (Surr) (1C)	63		20 - 131
Tetrachloro-m-xylene (Surr) (2C)	63		20 - 131

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

Lab Sample ID: MB 410-196202/1-A

Matrix: Solid

Analysis Batch: 196799

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 196202

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016 (1C)	5.3	U	17	5.3	ug/Kg		11/18/21 09:36	11/19/21 07:47	1
PCB-1221 (1C)	5.3	U	17	5.3	ug/Kg		11/18/21 09:36	11/19/21 07:47	1
PCB-1232 (1C)	5.3	U	17	5.3	ug/Kg		11/18/21 09:36	11/19/21 07:47	1
PCB-1242 (1C)	5.3	U	17	5.3	ug/Kg		11/18/21 09:36	11/19/21 07:47	1
PCB-1248 (1C)	5.3	U	17	5.3	ug/Kg		11/18/21 09:36	11/19/21 07:47	1
PCB-1254 (1C)	6.4	U	17	6.4	ug/Kg		11/18/21 09:36	11/19/21 07:47	1
PCB-1260 (1C)	6.4	U	17	6.4	ug/Kg		11/18/21 09:36	11/19/21 07:47	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	127		45 - 143	11/18/21 09:36	11/19/21 07:47	1
DCB Decachlorobiphenyl (Surr) (2C)	116		45 - 143	11/18/21 09:36	11/19/21 07:47	1
Tetrachloro-m-xylene (1C)	101		53 - 140	11/18/21 09:36	11/19/21 07:47	1
Tetrachloro-m-xylene (2C)	91		53 - 140	11/18/21 09:36	11/19/21 07:47	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

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

Lab Sample ID: LCS 410-196202/2-A
Matrix: Solid
Analysis Batch: 196799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196202

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016 (1C)	167	125		ug/Kg		75	68 - 121
PCB-1260 (1C)	168	162		ug/Kg		96	75 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	112		45 - 143
DCB Decachlorobiphenyl (Surr) (2C)	102		45 - 143
Tetrachloro-m-xylene (1C)	94		53 - 140
Tetrachloro-m-xylene (2C)	85		53 - 140

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-193945/1-A
Matrix: Solid
Analysis Batch: 195532

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 193945

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.7	U	5.0	1.7	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Aluminum	11	U	20	11	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Arsenic	1.4	U	3.0	1.4	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Beryllium	0.10	U	0.50	0.10	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Cadmium	0.10	U	0.50	0.10	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Calcium	12	U	50	12	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Chromium	0.18	U	1.5	0.18	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Cobalt	0.15	U	0.50	0.15	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Copper	0.77	U ^3+	2.0	0.77	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Iron	6.2	U	20	6.2	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Lead	0.60	U	1.5	0.60	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Magnesium	4.0	U	10	4.0	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Manganese	0.52	U	1.0	0.52	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Nickel	0.26	U	1.0	0.26	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Potassium	20	U ^^+ ^3+	50	20	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Selenium	1.5	U	5.0	1.5	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Silver	0.40	U ^5-	1.0	0.40	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Sodium	46	U	100	46	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Zinc	1.0	U	2.0	1.0	mg/Kg		11/12/21 04:25	11/16/21 16:00	1
Vanadium	0.43	U	1.0	0.43	mg/Kg		11/12/21 04:25	11/16/21 16:00	1

Lab Sample ID: MB 410-193945/1-A
Matrix: Solid
Analysis Batch: 195925

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 193945

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	2.02		0.50	0.15	mg/Kg		11/12/21 04:25	11/17/21 11:40	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

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

Lab Sample ID: MB 410-193945/1-A
Matrix: Solid
Analysis Batch: 196435

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 193945

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Thallium	1.3	U ^5+	3.0	1.3	mg/Kg		11/12/21 04:25	11/18/21 12:25	1

Lab Sample ID: LCS 410-193945/2-A
Matrix: Solid
Analysis Batch: 195532

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193945

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				
Antimony	10.0	9.03		mg/Kg		90	80 - 120
Aluminum	500	477		mg/Kg		95	80 - 120
Arsenic	50.0	49.5		mg/Kg		99	80 - 120
Beryllium	5.00	5.10		mg/Kg		102	80 - 120
Cadmium	5.00	4.98		mg/Kg		100	80 - 120
Calcium	500	513		mg/Kg		103	80 - 120
Chromium	50.0	51.4		mg/Kg		103	80 - 120
Cobalt	50.0	51.4		mg/Kg		103	80 - 120
Iron	500	549		mg/Kg		110	80 - 120
Lead	5.00	5.06		mg/Kg		101	80 - 120
Magnesium	500	533		mg/Kg		107	80 - 120
Manganese	50.0	51.2		mg/Kg		102	80 - 120
Nickel	50.0	51.2		mg/Kg		102	80 - 120
Selenium	10.0	10.4		mg/Kg		104	80 - 120
Silver	5.00	5.08	^5-	mg/Kg		102	80 - 120
Sodium	500	569		mg/Kg		114	80 - 120
Zinc	50.0	49.1		mg/Kg		98	80 - 120
Vanadium	50.0	50.0		mg/Kg		100	80 - 120

Lab Sample ID: LCS 410-193945/2-A
Matrix: Solid
Analysis Batch: 195925

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193945

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				
Barium	50.0	54.7		mg/Kg		109	80 - 120
Copper	50.0	52.6		mg/Kg		105	80 - 120

Lab Sample ID: LCS 410-193945/2-A
Matrix: Solid
Analysis Batch: 196435

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193945

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				
Potassium	500	495		mg/Kg		99	80 - 120
Thallium	10.0	10.4	^5+	mg/Kg		104	80 - 120

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-193952/1-A
Matrix: Solid
Analysis Batch: 195607

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 193952

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.015	U	0.036	0.015	mg/Kg		11/12/21 04:58	11/16/21 19:00	1

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: LCS 410-193952/2-A
Matrix: Solid
Analysis Batch: 195607

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 193952

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.100	0.105		mg/Kg		105	80 - 120

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QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

GC/MS VOA

Prep Batch: 193829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	5035	

Analysis Batch: 194472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	8260C	193829
MB 410-194472/7	Method Blank	Total/NA	Solid	8260C	
LCS 410-194472/4	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-194472/5	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 197019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	3546	
410-62932-1 - DL	PS-04 AP (10.5-11.0)	Total/NA	Solid	3546	
MB 410-197019/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-197019/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 197305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-197019/1-A	Method Blank	Total/NA	Solid	8270D	197019
LCS 410-197019/2-A	Lab Control Sample	Total/NA	Solid	8270D	197019

Analysis Batch: 197319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	8270D	197019

Analysis Batch: 197715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62932-1 - DL	PS-04 AP (10.5-11.0)	Total/NA	Solid	8270D	197019

GC Semi VOA

Prep Batch: 196202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	3546	
MB 410-196202/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-196202/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 196203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	3546	
MB 410-196203/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-196203/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 196754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	8081B	196203
MB 410-196203/1-A	Method Blank	Total/NA	Solid	8081B	196203
LCS 410-196203/2-A	Lab Control Sample	Total/NA	Solid	8081B	196203

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

GC Semi VOA

Analysis Batch: 196799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	8082A	196202
MB 410-196202/1-A	Method Blank	Total/NA	Solid	8082A	196202
LCS 410-196202/2-A	Lab Control Sample	Total/NA	Solid	8082A	196202

Metals

Prep Batch: 193945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	3050B	
MB 410-193945/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-193945/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 193952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	7471B	
MB 410-193952/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-193952/2-A	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 195532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	6010D	193945
MB 410-193945/1-A	Method Blank	Total/NA	Solid	6010D	193945
LCS 410-193945/2-A	Lab Control Sample	Total/NA	Solid	6010D	193945

Analysis Batch: 195607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	7471B	193952
MB 410-193952/1-A	Method Blank	Total/NA	Solid	7471B	193952
LCS 410-193952/2-A	Lab Control Sample	Total/NA	Solid	7471B	193952

Analysis Batch: 195925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	6010D	193945
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	6010D	193945
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	6010D	193945
MB 410-193945/1-A	Method Blank	Total/NA	Solid	6010D	193945
LCS 410-193945/2-A	Lab Control Sample	Total/NA	Solid	6010D	193945

Analysis Batch: 196435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	6010D	193945
MB 410-193945/1-A	Method Blank	Total/NA	Solid	6010D	193945
LCS 410-193945/2-A	Lab Control Sample	Total/NA	Solid	6010D	193945

General Chemistry

Analysis Batch: 193814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-62932-1	PS-04 AP (10.5-11.0)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

Client Sample ID: PS-04 AP (10.5-11.0)

Lab Sample ID: 410-62932-1

Date Collected: 11/10/21 08:10

Matrix: Solid

Date Received: 11/11/21 10:59

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	193814	11/11/21 17:46	OEL4	ELLE

Client Sample ID: PS-04 AP (10.5-11.0)

Lab Sample ID: 410-62932-1

Date Collected: 11/10/21 08:10

Matrix: Solid

Date Received: 11/11/21 10:59

Percent Solids: 74.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			193829	11/11/21 18:35	D8NM	ELLE
Total/NA	Analysis	8260C		50	194472	11/13/21 17:52	USEJ	ELLE
Total/NA	Prep	3546			197019	11/19/21 16:54	D7SW	ELLE
Total/NA	Analysis	8270D		1	197319	11/22/21 04:10	SJ89	ELLE
Total/NA	Prep	3546	DL		197019	11/19/21 16:54	D7SW	ELLE
Total/NA	Analysis	8270D	DL	10	197715	11/23/21 01:34	W6XI	ELLE
Total/NA	Prep	3546			196203	11/18/21 09:36	H2LC	ELLE
Total/NA	Analysis	8081B		5	196754	11/19/21 16:45	WN7O	ELLE
Total/NA	Prep	3546			196202	11/18/21 09:36	H2LC	ELLE
Total/NA	Analysis	8082A		1	196799	11/19/21 12:19	JC94	ELLE
Total/NA	Prep	3050B			193945	11/12/21 04:25	UAMX	ELLE
Total/NA	Analysis	6010D		1	195532	11/16/21 17:30	UCIG	ELLE
Total/NA	Prep	3050B			193945	11/12/21 04:25	UAMX	ELLE
Total/NA	Analysis	6010D		1	196435	11/18/21 12:41	WJM9	ELLE
Total/NA	Prep	3050B			193945	11/12/21 04:25	UAMX	ELLE
Total/NA	Analysis	6010D		1	195925	11/17/21 13:20	WJM9	ELLE
Total/NA	Prep	3050B			193945	11/12/21 04:25	UAMX	ELLE
Total/NA	Analysis	6010D		5	195925	11/17/21 13:23	WJM9	ELLE
Total/NA	Prep	3050B			193945	11/12/21 04:25	UAMX	ELLE
Total/NA	Analysis	6010D		10	195925	11/17/21 13:27	WJM9	ELLE
Total/NA	Prep	7471B			193952	11/12/21 04:58	UJLA	ELLE
Total/NA	Analysis	7471B		1	195607	11/16/21 19:57	UEFS	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22

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
8260C	5035	Solid	m&p-Xylene
8260C	5035	Solid	o-Xylene
Moisture		Solid	Percent Moisture

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Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
6010D	Metals (ICP)	SW846	ELLE
7471B	Mercury (CVAA)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
7471B	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-62932-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-62932-1	PS-04 AP (10.5-11.0)	Solid	11/10/21 08:10	11/11/21 10:59

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410-62932 Chain of Custody

Baltimore
#201

Chain of Custody Record

552167



Environment Testing
TestAmerica

Regulatory Program: DW NPDES RCRA Other: VADEP

TAL-8210

Project Manager: Ashley Sweeney		Site Contact:		Date: 11/8/21		COC No: _____	
Company Name: Roux Associates		Tel/Email: asweeney@rouxinc.com		Lab Contact:		Carrier: _____	
Address: 402 Heron Drive		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				SAMPLER:	
City/State/Zip: Loudon Twp. NY 08085						For Lab Use Only:	
Phone: 956-423-8900		Job / SDG No.:		Walk-in Client: _____		Lab Sampling: _____	
Fax:				Job / SDG No.:		Sample Specific Notes:	
Project Name: Mueser-Alexandria				Job / SDG No.:		Sample Specific Notes:	
Site: Alexandria, VA		PO #		Sample Type (C=Comp, G=Grab)		Matrix	
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y/N)
PS-04 AP (10.5-11.0)		11/10/21	810	G	Soil	G	
							Perform MS / MSD (Y / N)
							TCL VOCs
							TCL SVOCs
							Pesticides
							TAL Metals
							PCBs
							Mercury

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample. <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months
---	---

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: 1.2	Corr'd: 1.7	Therm ID No.: 6045
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Relinquished by: <i>Mr. Kenje</i>	Company: Roux	Date/Time: 11/10/21 1405	Received by: <i>AS</i>	Company: F&S	Date/Time: 11/10/21 14:07
Relinquished by: <i>AS</i>	Company: F&S	Date/Time: 11/10/21 17200	Received by: <i>AS</i>	Company: F&S	Date/Time: _____
Relinquished by: <i>AS</i>	Company: F&S	Date/Time: _____	Received in Laboratory by: <i>AS</i>	Company: F&S	Date/Time: 11/11/21 1059

Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-62932-1

Login Number: 62932

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Bryan, Debra A

Question	Answer	Comment
The cooler's custody seal is intact.	True	
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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-63382-1
Client Project/Site: Mueser Alexandria

For:

Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
11/30/2021 3:52:40 PM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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A handwritten signature in cursive script that reads "Kelly Tessier".

Kelly Tessier
Project Manager
11/30/2021 3:52:40 PM



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Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
^5+	Linear Range Check (LRC) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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
PQL	Practical Quantitation Limit
PRES	Presumptive

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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

DRAFT

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Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

Job ID: 410-63382-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-63382-1

Receipt

The sample was received on 11/15/2021 5:57 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.1°C

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

GC/MS VOA

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

GC/MS Semi VOA

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

PCBs

Method 8082A: The continuing calibration verification (CCV) associated with batch 410-197389 recovered above the upper control limit for DCB Decachlorobiphenyl (Surr) on one column. Results are confirmed on both columns and reported from the passing column. PS-04P (5.5-6.0) (410-63382-1).

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

Pesticides

Method 8081B: Surrogate recovery for the following sample was outside control limits: PS-04P (5.5-6.0) (410-63382-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8081B: The following sample was diluted due to the nature of the sample matrix: PS-04P (5.5-6.0) (410-63382-1). Elevated reporting limits (RLs) are provided.

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

Metals

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.

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

Client Sample ID: PS-04P (5.5-6.0)

Lab Sample ID: 410-63382-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	12	J	21	6.2	ug/Kg	1	*	8260C	Total/NA
1,1'-Biphenyl	40	J	45	21	ug/Kg	1	*	8270D	Total/NA
2-Methylnaphthalene	160		21	6.2	ug/Kg	1	*	8270D	Total/NA
4-Methylphenol	31	J	62	21	ug/Kg	1	*	8270D	Total/NA
Acenaphthene	63		21	4.1	ug/Kg	1	*	8270D	Total/NA
Acenaphthylene	82		21	4.9	ug/Kg	1	*	8270D	Total/NA
Anthracene	160		21	4.1	ug/Kg	1	*	8270D	Total/NA
Benzo[a]anthracene	500		21	4.1	ug/Kg	1	*	8270D	Total/NA
Benzo[a]pyrene	540		21	4.1	ug/Kg	1	*	8270D	Total/NA
Benzo[b]fluoranthene	600		21	4.1	ug/Kg	1	*	8270D	Total/NA
Benzo[g,h,i]perylene	390		21	4.1	ug/Kg	1	*	8270D	Total/NA
Benzo[k]fluoranthene	220		21	4.1	ug/Kg	1	*	8270D	Total/NA
Carbazole	81		45	21	ug/Kg	1	*	8270D	Total/NA
Chrysene	540		21	4.1	ug/Kg	1	*	8270D	Total/NA
Dibenz(a,h)anthracene	110		21	8.2	ug/Kg	1	*	8270D	Total/NA
Dibenzofuran	88		45	21	ug/Kg	1	*	8270D	Total/NA
Fluoranthene	1100		21	4.1	ug/Kg	1	*	8270D	Total/NA
Fluorene	120		21	4.1	ug/Kg	1	*	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	330		21	4.9	ug/Kg	1	*	8270D	Total/NA
Naphthalene	130		21	8.2	ug/Kg	1	*	8270D	Total/NA
Phenanthrene	960		21	4.9	ug/Kg	1	*	8270D	Total/NA
Pyrene	940		21	4.1	ug/Kg	1	*	8270D	Total/NA
alpha-BHC (2C)	5.4	J p	10	2.1	ug/Kg	10	*	8081B	Total/NA
Heptachlor (1C)	13	p	10	3.8	ug/Kg	10	*	8081B	Total/NA
Antimony	8.8		5.4	1.8	mg/Kg	1	*	6010D	Total/NA
Aluminum	9300		22	11	mg/Kg	1	*	6010D	Total/NA
Arsenic	5.0		3.3	1.5	mg/Kg	1	*	6010D	Total/NA
Barium	90	B	0.54	0.16	mg/Kg	1	*	6010D	Total/NA
Cadmium	0.52	J	0.54	0.11	mg/Kg	1	*	6010D	Total/NA
Calcium	38000	B	54	13	mg/Kg	1	*	6010D	Total/NA
Chromium	18		1.6	0.20	mg/Kg	1	*	6010D	Total/NA
Cobalt	7.3		0.54	0.16	mg/Kg	1	*	6010D	Total/NA
Copper	65		2.2	0.83	mg/Kg	1	*	6010D	Total/NA
Iron	18000		22	6.7	mg/Kg	1	*	6010D	Total/NA
Lead	70		1.6	0.65	mg/Kg	1	*	6010D	Total/NA
Magnesium	2100	B	11	4.3	mg/Kg	1	*	6010D	Total/NA
Manganese	360		1.1	0.56	mg/Kg	1	*	6010D	Total/NA
Nickel	12		1.1	0.28	mg/Kg	1	*	6010D	Total/NA
Potassium	1800		54	22	mg/Kg	1	*	6010D	Total/NA
Sodium	340		110	50	mg/Kg	1	*	6010D	Total/NA
Zinc	120		2.2	1.1	mg/Kg	1	*	6010D	Total/NA
Vanadium	26		1.1	0.47	mg/Kg	1	*	6010D	Total/NA
Mercury	0.56		0.068	0.029	mg/Kg	1	*	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

Client Sample ID: PS-04P (5.5-6.0)

Lab Sample ID: 410-63382-1

Date Collected: 11/15/21 08:00

Matrix: Solid

Date Received: 11/15/21 17:57

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.42	U	5.2	0.42	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
trans-1,3-Dichloropropene	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Ethylbenzene	0.42	U	5.2	0.42	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Styrene	0.42	U	5.2	0.42	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
1,4-Dichlorobenzene	0.42	U	5.2	0.42	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
1,2-Dibromoethane	0.42	U	5.2	0.42	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
1,2-Dichloroethane	0.62	U	5.2	0.62	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
4-Methyl-2-pentanone	1.0	U	10	1.0	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Methylcyclohexane	0.62	U	5.2	0.62	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Toluene	0.62	U	5.2	0.62	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Chlorobenzene	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Cyclohexane	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
1,2,4-Trichlorobenzene	5.2	U	10	5.2	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
1,4-Dioxane	38	U	260	38	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Dibromochloromethane	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Tetrachloroethene	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
cis-1,2-Dichloroethene	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
trans-1,2-Dichloroethene	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Methyl tertiary butyl ether	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
m&p-Xylene	1.0	U	5.2	1.0	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
1,3-Dichlorobenzene	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Carbon tetrachloride	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
2-Hexanone	1.0	U	10	1.0	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Acetone	12	J	21	6.2	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Chloroform	0.62	U	5.2	0.62	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Benzene	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
1,1,1-Trichloroethane	0.62	U	5.2	0.62	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Bromomethane	0.73	U	5.2	0.73	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Chloromethane	0.62	U	5.2	0.62	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Bromochloromethane	0.62	U	5.2	0.62	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Chloroethane	1.0	U	5.2	1.0	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Vinyl chloride	0.62	U	5.2	0.62	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Methylene Chloride	2.1	U	5.2	2.1	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Carbon disulfide	0.62	U	5.2	0.62	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Bromoform	5.2	U	10	5.2	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Bromodichloromethane	0.42	U	5.2	0.42	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
1,1-Dichloroethane	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
1,1-Dichloroethene	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Trichlorofluoromethane	0.73	U	5.2	0.73	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Dichlorodifluoromethane	0.62	U	5.2	0.62	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Freon 113	0.62	U	10	0.62	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
1,2-Dichloropropane	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
2-Butanone	2.1	U	10	2.1	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
1,1,2-Trichloroethane	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Trichloroethene	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Methyl acetate	1.0	U	5.2	1.0	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
1,1,2,2-Tetrachloroethane	0.42	U	5.2	0.42	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
1,2,3-Trichlorobenzene	5.2	U	10	5.2	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
o-Xylene	0.42	U	5.2	0.42	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

Client Sample ID: PS-04P (5.5-6.0)

Lab Sample ID: 410-63382-1

Date Collected: 11/15/21 08:00

Matrix: Solid

Date Received: 11/15/21 17:57

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
1,2-Dibromo-3-Chloropropane	0.52	U	5.2	0.52	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Isopropylbenzene	0.42	U	5.2	0.42	ug/Kg	☼	11/16/21 18:05	11/19/21 14:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		54 - 135				11/16/21 18:05	11/19/21 14:37	1
4-Bromofluorobenzene (Surr)	97		50 - 131				11/16/21 18:05	11/19/21 14:37	1
Dibromofluoromethane (Surr)	104		50 - 141				11/16/21 18:05	11/19/21 14:37	1
Toluene-d8 (Surr)	100		52 - 141				11/16/21 18:05	11/19/21 14:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	40	J	45	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
1,2,4,5-Tetrachlorobenzene	21	U	45	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
2,2'-oxybis[1-chloropropane]	25	U	54	25	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
2,3,4,6-Tetrachlorophenol	82	U	210	82	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
2,4,5-Trichlorophenol	21	U	45	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
2,4,6-Trichlorophenol	21	U	45	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
2,4-Dichlorophenol	25	U	54	25	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
2,4-Dimethylphenol	21	U	45	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
2,4-Dinitrophenol	210	U	1200	210	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
2,4-Dinitrotoluene	41	U	210	41	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
2,6-Dinitrotoluene	21	U	45	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
2-Chloronaphthalene	16	U	41	16	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
2-Chlorophenol	21	U	45	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
2-Methylnaphthalene	160		21	6.2	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
2-Methylphenol	25	U	62	25	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
2-Nitroaniline	21	U	62	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
2-Nitrophenol	25	U	62	25	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
3,3'-Dichlorobenzidine	41	U	210	41	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
3-Nitroaniline	41	U	210	41	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
4,6-Dinitro-2-methylphenol	210	U	620	210	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
4-Bromophenyl-phenylether	21	U	45	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
4-Chloro-3-methylphenol	25	U	62	25	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
4-Methylphenol	31	J	62	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
4-Nitroaniline	41	U	210	41	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
4-Nitrophenol	210	U	620	210	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Acenaphthene	63		21	4.1	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Acenaphthylene	82		21	4.9	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Acetophenone	21	U	62	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Anthracene	160		21	4.1	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Atrazine	82	U	210	82	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Benzaldehyde	41	U	210	41	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Benzo[a]anthracene	500		21	4.1	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Benzo[a]pyrene	540		21	4.1	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Benzo[b]fluoranthene	600		21	4.1	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Benzo[g,h,i]perylene	390		21	4.1	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Benzo[k]fluoranthene	220		21	4.1	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Bis(2-chloroethoxy)methane	21	U	45	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Bis(2-chloroethyl)ether	21	U	45	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

Client Sample ID: PS-04P (5.5-6.0)

Lab Sample ID: 410-63382-1

Date Collected: 11/15/21 08:00

Matrix: Solid

Date Received: 11/15/21 17:57

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	82	U	210	82	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Butylbenzylphthalate	82	U	210	82	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Caprolactam	41	U	210	41	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Carbazole	81		45	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Chrysene	540		21	4.1	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Di-n-butyl phthalate	82	U	210	82	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Di-n-octyl phthalate	82	U	210	82	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Dibenz(a,h)anthracene	110		21	8.2	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Dibenzofuran	88		45	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Diethyl phthalate	82	U	210	82	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Dimethyl phthalate	82	U	210	82	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Fluoranthene	1100		21	4.1	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Fluorene	120		21	4.1	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Hexachlorobenzene	8.2	U	21	8.2	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Hexachlorobutadiene	25	U	62	25	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Hexachlorocyclopentadiene	210	U	620	210	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Hexachloroethane	41	U	210	41	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Indeno[1,2,3-cd]pyrene	330		21	4.9	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Isophorone	21	U	82	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
N-Nitrosodi-n-propylamine	41	U	82	41	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
N-Nitrosodiphenylamine	21	U	45	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Naphthalene	130		21	8.2	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Nitrobenzene	21	U	45	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Phenanthrene	960		21	4.9	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Phenol	21	U	45	21	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Pyrene	940		21	4.1	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1
Pentachlorophenol	82	U	210	82	ug/Kg	☼	11/22/21 16:37	11/23/21 15:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	85		45 - 108	11/22/21 16:37	11/23/21 15:42	1
Nitrobenzene-d5 (Surr)	68		32 - 97	11/22/21 16:37	11/23/21 15:42	1
2-Fluorophenol (Surr)	73		26 - 96	11/22/21 16:37	11/23/21 15:42	1
2-Fluorobiphenyl (Surr)	75		39 - 100	11/22/21 16:37	11/23/21 15:42	1
2,4,6-Tribromophenol (Surr)	71		13 - 121	11/22/21 16:37	11/23/21 15:42	1
Phenol-d5 (Surr)	73		27 - 104	11/22/21 16:37	11/23/21 15:42	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (2C)	2.1	U	10	2.1	ug/Kg	☼	11/19/21 10:00	11/20/21 17:24	10
alpha-BHC (2C)	5.4	J p	10	2.1	ug/Kg	☼	11/19/21 10:00	11/20/21 17:24	10
alpha-Chlordane (1C)	42	U	200	42	ug/Kg	☼	11/19/21 10:00	11/20/21 17:44	200
beta-BHC (1C)	110	U	250	110	ug/Kg	☼	11/19/21 10:00	11/20/21 17:44	200
delta-BHC (2C)	5.5	U	12	5.5	ug/Kg	☼	11/19/21 10:00	11/20/21 17:24	10
Dieldrin (1C)	4.0	U	21	4.0	ug/Kg	☼	11/19/21 10:00	11/20/21 17:24	10
Endosulfan I (1C)	54	U	200	54	ug/Kg	☼	11/19/21 10:00	11/20/21 17:44	200
Endosulfan II (1C)	13	U	28	13	ug/Kg	☼	11/19/21 10:00	11/20/21 17:24	10
Endosulfan sulfate (1C)	4.0	U	21	4.0	ug/Kg	☼	11/19/21 10:00	11/20/21 17:24	10
Endrin (1C)	8.3	U	21	8.3	ug/Kg	☼	11/19/21 10:00	11/20/21 17:24	10
Endrin aldehyde (1C)	4.0	U	21	4.0	ug/Kg	☼	11/19/21 10:00	11/20/21 17:24	10
Endrin ketone (1C)	150	U	490	150	ug/Kg	☼	11/19/21 10:00	11/20/21 17:44	200

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

Client Sample ID: PS-04P (5.5-6.0)

Lab Sample ID: 410-63382-1

Date Collected: 11/15/21 08:00

Matrix: Solid

Date Received: 11/15/21 17:57

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane) (1C)	52	U	200	52	ug/Kg	☼	11/19/21 10:00	11/20/21 17:44	200
gamma-Chlordane (1C)	61	U	200	61	ug/Kg	☼	11/19/21 10:00	11/20/21 17:44	200
Heptachlor (1C)	13	p	10	3.8	ug/Kg	☼	11/19/21 10:00	11/20/21 17:24	10
Heptachlor epoxide (1C)	2.1	U	10	2.1	ug/Kg	☼	11/19/21 10:00	11/20/21 17:24	10
Methoxychlor (1C)	22	U	82	22	ug/Kg	☼	11/19/21 10:00	11/20/21 17:24	10
Toxaphene (1C)	170	U	400	170	ug/Kg	☼	11/19/21 10:00	11/20/21 17:24	10
p,p'-DDD (1C)	4.0	U	21	4.0	ug/Kg	☼	11/19/21 10:00	11/20/21 17:24	10
p,p'-DDE (1C)	4.0	U	21	4.0	ug/Kg	☼	11/19/21 10:00	11/20/21 17:24	10
p,p'-DDT (1C)	190	U	420	190	ug/Kg	☼	11/19/21 10:00	11/20/21 17:44	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	104		54 - 143	11/19/21 10:00	11/20/21 17:24	10
DCB Decachlorobiphenyl (Surr) (1C)	116		54 - 143	11/19/21 10:00	11/20/21 17:44	200
DCB Decachlorobiphenyl (Surr) (2C)	103		54 - 143	11/19/21 10:00	11/20/21 17:24	10
DCB Decachlorobiphenyl (Surr) (2C)	112		54 - 143	11/19/21 10:00	11/20/21 17:44	200
Tetrachloro-m-xylene (Surr) (1C)	106	p	20 - 131	11/19/21 10:00	11/20/21 17:24	10
Tetrachloro-m-xylene (Surr) (1C)	115		20 - 131	11/19/21 10:00	11/20/21 17:44	200
Tetrachloro-m-xylene (Surr) (2C)	165	S1+	20 - 131	11/19/21 10:00	11/20/21 17:24	10
Tetrachloro-m-xylene (Surr) (2C)	118		20 - 131	11/19/21 10:00	11/20/21 17:44	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	6.5	U	21	6.5	ug/Kg	☼	11/19/21 10:00	11/21/21 23:46	1
PCB-1221 (2C)	6.5	U	21	6.5	ug/Kg	☼	11/19/21 10:00	11/21/21 23:46	1
PCB-1232 (2C)	6.5	U	21	6.5	ug/Kg	☼	11/19/21 10:00	11/21/21 23:46	1
PCB-1242 (2C)	6.5	U	21	6.5	ug/Kg	☼	11/19/21 10:00	11/21/21 23:46	1
PCB-1248 (2C)	6.5	U	21	6.5	ug/Kg	☼	11/19/21 10:00	11/21/21 23:46	1
PCB-1254 (2C)	7.9	U	21	7.9	ug/Kg	☼	11/19/21 10:00	11/21/21 23:46	1
PCB-1260 (2C)	7.9	U	21	7.9	ug/Kg	☼	11/19/21 10:00	11/21/21 23:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	96		45 - 143	11/19/21 10:00	11/21/21 23:46	1
DCB Decachlorobiphenyl (Surr) (2C)	93		45 - 143	11/19/21 10:00	11/21/21 23:46	1
Tetrachloro-m-xylene (1C)	84		53 - 140	11/19/21 10:00	11/21/21 23:46	1
Tetrachloro-m-xylene (2C)	74		53 - 140	11/19/21 10:00	11/21/21 23:46	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	8.8		5.4	1.8	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1
Aluminum	9300		22	11	mg/Kg	☼	11/16/21 22:04	11/24/21 17:50	1
Arsenic	5.0		3.3	1.5	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1
Barium	90	B	0.54	0.16	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1
Beryllium	0.11	U	0.54	0.11	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1
Cadmium	0.52	J	0.54	0.11	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1
Calcium	38000	B	54	13	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1
Chromium	18		1.6	0.20	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1
Cobalt	7.3		0.54	0.16	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1
Copper	65		2.2	0.83	mg/Kg	☼	11/16/21 22:04	11/24/21 17:50	1
Iron	18000		22	6.7	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1
Lead	70		1.6	0.65	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

Client Sample ID: PS-04P (5.5-6.0)

Lab Sample ID: 410-63382-1

Date Collected: 11/15/21 08:00

Matrix: Solid

Date Received: 11/15/21 17:57

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	2100	B	11	4.3	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1
Manganese	360		1.1	0.56	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1
Nickel	12		1.1	0.28	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1
Potassium	1800		54	22	mg/Kg	☼	11/16/21 22:04	11/24/21 17:50	1
Selenium	1.6	U	5.4	1.6	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1
Silver	0.43	U ^5- ^3+	1.1	0.43	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1
Sodium	340		110	50	mg/Kg	☼	11/16/21 22:04	11/24/21 17:50	1
Thallium	1.4	U ^5+	3.3	1.4	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1
Zinc	120		2.2	1.1	mg/Kg	☼	11/16/21 22:04	11/29/21 11:58	1
Vanadium	26		1.1	0.47	mg/Kg	☼	11/16/21 22:04	11/22/21 17:57	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.56		0.068	0.029	mg/Kg	☼	11/16/21 14:51	11/18/21 18:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.1		1.0	1.0	%			11/16/21 09:17	1

DRAFT

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Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (54-135)	BFB (50-131)	DBFM (50-141)	TOL (52-141)
410-63382-1	PS-04P (5.5-6.0)	102	97	104	100
LCS 410-196746/6	Lab Control Sample	104	101	104	98
LCS 410-196746/7	Lab Control Sample Dup	107	101	105	97
MB 410-196746/11	Method Blank	103	100	102	98

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (45-108)	NBZ (32-97)	2FP (26-96)	FBP (39-100)	TBP (13-121)	PHL (27-104)
410-63382-1	PS-04P (5.5-6.0)	85	68	73	75	71	73
LCS 410-197744/2-A	Lab Control Sample	97	79	82	87	94	82
MB 410-197744/1-A	Method Blank	99	78	77	87	92	75

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (54-143)	DCB2 (54-143)	TCX1 (20-131)	TCX2 (20-131)
410-63382-1	PS-04P (5.5-6.0)	104	103	106 p	165 S1+
410-63382-1	PS-04P (5.5-6.0)	116	112	115	118
LCS 410-196699/2-A	Lab Control Sample	85	85	65	65
MB 410-196699/1-A	Method Blank	82	86	70	71

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (45-143)	DCB2 (45-143)	TCX1 (53-140)	TCX2 (53-140)
410-63382-1	PS-04P (5.5-6.0)	96	93	84	74
LCS 410-196700/2-A	Lab Control Sample	121	107	98	86

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1	DCB2	TCX1	TCX2
		(45-143)	(45-143)	(53-140)	(53-140)
MB 410-196700/1-A	Method Blank	122	105	101	89

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

DRAFT

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

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

Lab Sample ID: MB 410-196746/11

Matrix: Solid

Analysis Batch: 196746

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	0.40	U	5.0	0.40	ug/Kg			11/19/21 13:10	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
Ethylbenzene	0.40	U	5.0	0.40	ug/Kg			11/19/21 13:10	1
Styrene	0.40	U	5.0	0.40	ug/Kg			11/19/21 13:10	1
1,4-Dichlorobenzene	0.40	U	5.0	0.40	ug/Kg			11/19/21 13:10	1
1,2-Dibromoethane	0.40	U	5.0	0.40	ug/Kg			11/19/21 13:10	1
1,2-Dichloroethane	0.60	U	5.0	0.60	ug/Kg			11/19/21 13:10	1
4-Methyl-2-pentanone	1.0	U	10	1.0	ug/Kg			11/19/21 13:10	1
Methylcyclohexane	0.60	U	5.0	0.60	ug/Kg			11/19/21 13:10	1
Toluene	0.60	U	5.0	0.60	ug/Kg			11/19/21 13:10	1
Chlorobenzene	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
Cyclohexane	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
1,2,4-Trichlorobenzene	5.0	U	10	5.0	ug/Kg			11/19/21 13:10	1
1,4-Dioxane	37	U	250	37	ug/Kg			11/19/21 13:10	1
Dibromochloromethane	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
Tetrachloroethene	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
cis-1,2-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
trans-1,2-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
Methyl tertiary butyl ether	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
m&p-Xylene	1.0	U	5.0	1.0	ug/Kg			11/19/21 13:10	1
1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
Carbon tetrachloride	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
2-Hexanone	1.0	U	10	1.0	ug/Kg			11/19/21 13:10	1
Acetone	6.0	U	20	6.0	ug/Kg			11/19/21 13:10	1
Chloroform	0.60	U	5.0	0.60	ug/Kg			11/19/21 13:10	1
Benzene	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
1,1,1-Trichloroethane	0.60	U	5.0	0.60	ug/Kg			11/19/21 13:10	1
Bromomethane	0.70	U	5.0	0.70	ug/Kg			11/19/21 13:10	1
Chloromethane	0.60	U	5.0	0.60	ug/Kg			11/19/21 13:10	1
Bromochloromethane	0.60	U	5.0	0.60	ug/Kg			11/19/21 13:10	1
Chloroethane	1.0	U	5.0	1.0	ug/Kg			11/19/21 13:10	1
Vinyl chloride	0.60	U	5.0	0.60	ug/Kg			11/19/21 13:10	1
Methylene Chloride	2.0	U	5.0	2.0	ug/Kg			11/19/21 13:10	1
Carbon disulfide	0.60	U	5.0	0.60	ug/Kg			11/19/21 13:10	1
Bromoform	5.0	U	10	5.0	ug/Kg			11/19/21 13:10	1
Bromodichloromethane	0.40	U	5.0	0.40	ug/Kg			11/19/21 13:10	1
1,1-Dichloroethane	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
1,1-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
Trichlorofluoromethane	0.70	U	5.0	0.70	ug/Kg			11/19/21 13:10	1
Dichlorodifluoromethane	0.60	U	5.0	0.60	ug/Kg			11/19/21 13:10	1
Freon 113	0.60	U	10	0.60	ug/Kg			11/19/21 13:10	1
1,2-Dichloropropane	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
2-Butanone	2.0	U	10	2.0	ug/Kg			11/19/21 13:10	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
Trichloroethene	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
Methyl acetate	1.0	U	5.0	1.0	ug/Kg			11/19/21 13:10	1
1,1,1,2-Tetrachloroethane	0.40	U	5.0	0.40	ug/Kg			11/19/21 13:10	1
1,2,3-Trichlorobenzene	5.0	U	10	5.0	ug/Kg			11/19/21 13:10	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

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

Lab Sample ID: MB 410-196746/11

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 196746

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	0.40	U	5.0	0.40	ug/Kg			11/19/21 13:10	1
1,2-Dichlorobenzene	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
1,2-Dibromo-3-Chloropropane	0.50	U	5.0	0.50	ug/Kg			11/19/21 13:10	1
Isopropylbenzene	0.40	U	5.0	0.40	ug/Kg			11/19/21 13:10	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	103		54 - 135		11/19/21 13:10	1
4-Bromofluorobenzene (Surr)	100		50 - 131		11/19/21 13:10	1
Dibromofluoromethane (Surr)	102		50 - 141		11/19/21 13:10	1
Toluene-d8 (Surr)	98		52 - 141		11/19/21 13:10	1

Lab Sample ID: LCS 410-196746/6

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 196746

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,3-Dichloropropene	20.0	20.6		ug/Kg		103	66 - 120
trans-1,3-Dichloropropene	20.0	20.4		ug/Kg		102	68 - 122
Ethylbenzene	20.0	19.8		ug/Kg		99	78 - 120
Styrene	20.0	19.6		ug/Kg		98	76 - 120
1,4-Dichlorobenzene	20.0	19.4		ug/Kg		97	80 - 120
1,2-Dibromoethane	20.0	19.7		ug/Kg		99	76 - 120
1,2-Dichloroethane	20.0	21.2		ug/Kg		106	71 - 128
4-Methyl-2-pentanone	250	267		ug/Kg		107	67 - 128
Methylcyclohexane	20.0	22.2		ug/Kg		111	61 - 124
Toluene	20.0	19.4		ug/Kg		97	80 - 120
Chlorobenzene	20.0	19.7		ug/Kg		99	80 - 120
Cyclohexane	20.0	22.5		ug/Kg		113	58 - 126
1,2,4-Trichlorobenzene	20.0	20.1		ug/Kg		100	56 - 130
1,4-Dioxane	500	462		ug/Kg		92	62 - 131
Dibromochloromethane	20.0	20.7		ug/Kg		103	69 - 125
Tetrachloroethene	20.0	19.5		ug/Kg		97	73 - 120
cis-1,2-Dichloroethene	20.0	21.6		ug/Kg		108	80 - 125
trans-1,2-Dichloroethene	20.0	20.7		ug/Kg		103	80 - 126
Methyl tertiary butyl ether	20.0	22.3		ug/Kg		111	72 - 120
m&p-Xylene	40.0	39.7		ug/Kg		99	80 - 120
1,3-Dichlorobenzene	20.0	19.2		ug/Kg		96	75 - 120
Carbon tetrachloride	20.0	20.8		ug/Kg		104	64 - 134
2-Hexanone	250	261		ug/Kg		104	54 - 140
Acetone	250	225		ug/Kg		90	41 - 150
Chloroform	20.0	20.5		ug/Kg		102	80 - 120
Benzene	20.0	21.0		ug/Kg		105	80 - 120
1,1,1-Trichloroethane	20.0	20.6		ug/Kg		103	69 - 123
Bromomethane	20.0	18.7		ug/Kg		93	45 - 140
Chloromethane	20.0	16.8		ug/Kg		84	56 - 120
Bromochloromethane	20.0	21.8		ug/Kg		109	72 - 124
Chloroethane	20.0	19.0		ug/Kg		95	43 - 135
Vinyl chloride	20.0	18.2		ug/Kg		91	52 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

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

Lab Sample ID: LCS 410-196746/6

Matrix: Solid

Analysis Batch: 196746

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	21.1		ug/Kg		106	76 - 122
Carbon disulfide	20.0	22.9		ug/Kg		114	64 - 133
Bromoform	20.0	20.8		ug/Kg		104	51 - 127
Bromodichloromethane	20.0	21.6		ug/Kg		108	70 - 120
1,1-Dichloroethane	20.0	20.7		ug/Kg		103	79 - 120
1,1-Dichloroethene	20.0	21.7		ug/Kg		109	73 - 129
Trichlorofluoromethane	20.0	20.6		ug/Kg		103	55 - 134
Dichlorodifluoromethane	20.0	17.8		ug/Kg		89	21 - 127
Freon 113	20.0	24.8		ug/Kg		124	64 - 135
1,2-Dichloropropane	20.0	21.1		ug/Kg		105	80 - 120
2-Butanone	250	229		ug/Kg		92	57 - 128
1,1,2-Trichloroethane	20.0	20.1		ug/Kg		100	80 - 120
Trichloroethene	20.0	20.3		ug/Kg		101	80 - 120
Methyl acetate	20.0	21.5		ug/Kg		107	67 - 128
1,1,1,2-Tetrachloroethane	20.0	20.6		ug/Kg		103	69 - 125
1,2,3-Trichlorobenzene	20.0	20.2		ug/Kg		101	57 - 131
o-Xylene	20.0	19.6		ug/Kg		98	75 - 120
1,2-Dichlorobenzene	20.0	19.5		ug/Kg		98	76 - 120
1,2-Dibromo-3-Chloropropane	20.0	19.3		ug/Kg		96	48 - 134
Isopropylbenzene	20.0	20.2		ug/Kg		101	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		54 - 135
4-Bromofluorobenzene (Surr)	101		50 - 131
Dibromofluoromethane (Surr)	104		50 - 141
Toluene-d8 (Surr)	98		52 - 141

Lab Sample ID: LCSD 410-196746/7

Matrix: Solid

Analysis Batch: 196746

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	20.0	17.3		ug/Kg		86	66 - 120	18	30
trans-1,3-Dichloropropene	20.0	17.3		ug/Kg		87	68 - 122	16	30
Ethylbenzene	20.0	16.2		ug/Kg		81	78 - 120	20	30
Styrene	20.0	16.0		ug/Kg		80	76 - 120	20	30
1,4-Dichlorobenzene	20.0	16.3		ug/Kg		82	80 - 120	17	30
1,2-Dibromoethane	20.0	17.2		ug/Kg		86	76 - 120	14	30
1,2-Dichloroethane	20.0	18.0		ug/Kg		90	71 - 128	16	30
4-Methyl-2-pentanone	250	232		ug/Kg		93	67 - 128	14	30
Methylcyclohexane	20.0	18.4		ug/Kg		92	61 - 124	19	30
Toluene	20.0	15.9		ug/Kg		80	80 - 120	20	30
Chlorobenzene	20.0	16.4		ug/Kg		82	80 - 120	18	30
Cyclohexane	20.0	18.6		ug/Kg		93	58 - 126	19	30
1,2,4-Trichlorobenzene	20.0	16.8		ug/Kg		84	56 - 130	18	30
1,4-Dioxane	500	434		ug/Kg		87	62 - 131	6	30
Dibromochloromethane	20.0	17.2		ug/Kg		86	69 - 125	18	30
Tetrachloroethene	20.0	16.2		ug/Kg		81	73 - 120	18	30

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

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

Lab Sample ID: LCSD 410-196746/7

Matrix: Solid

Analysis Batch: 196746

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
		Result	Qualifier				Limits		Limit
cis-1,2-Dichloroethene	20.0	17.8		ug/Kg		89	80 - 125	19	30
trans-1,2-Dichloroethene	20.0	17.0		ug/Kg		85	80 - 126	19	30
Methyl tertiary butyl ether	20.0	19.2		ug/Kg		96	72 - 120	15	30
m&p-Xylene	40.0	32.6		ug/Kg		82	80 - 120	20	30
1,3-Dichlorobenzene	20.0	16.2		ug/Kg		81	75 - 120	17	30
Carbon tetrachloride	20.0	17.4		ug/Kg		87	64 - 134	18	30
2-Hexanone	250	229		ug/Kg		92	54 - 140	13	30
Acetone	250	192		ug/Kg		77	41 - 150	16	30
Chloroform	20.0	17.1		ug/Kg		85	80 - 120	18	30
Benzene	20.0	17.3		ug/Kg		87	80 - 120	19	30
1,1,1-Trichloroethane	20.0	16.7		ug/Kg		84	69 - 123	21	30
Bromomethane	20.0	15.4		ug/Kg		77	45 - 140	19	30
Chloromethane	20.0	13.7		ug/Kg		69	56 - 120	20	30
Bromochloromethane	20.0	17.6		ug/Kg		88	72 - 124	21	30
Chloroethane	20.0	16.1		ug/Kg		80	43 - 135	16	30
Vinyl chloride	20.0	15.2		ug/Kg		76	52 - 120	18	30
Methylene Chloride	20.0	17.9		ug/Kg		89	76 - 122	17	30
Carbon disulfide	20.0	19.0		ug/Kg		95	64 - 133	18	30
Bromoform	20.0	17.5		ug/Kg		87	51 - 127	17	30
Bromodichloromethane	20.0	18.2		ug/Kg		91	70 - 120	17	30
1,1-Dichloroethane	20.0	17.2		ug/Kg		86	79 - 120	18	30
1,1-Dichloroethene	20.0	17.9		ug/Kg		90	73 - 129	19	30
Trichlorofluoromethane	20.0	16.8		ug/Kg		84	55 - 134	20	30
Dichlorodifluoromethane	20.0	15.0		ug/Kg		75	21 - 127	17	30
Freon 113	20.0	20.8		ug/Kg		104	64 - 135	18	30
1,2-Dichloropropane	20.0	17.7		ug/Kg		89	80 - 120	17	30
2-Butanone	250	192		ug/Kg		77	57 - 128	18	30
1,1,2-Trichloroethane	20.0	17.5		ug/Kg		88	80 - 120	13	30
Trichloroethene	20.0	17.0		ug/Kg		85	80 - 120	18	30
Methyl acetate	20.0	19.5		ug/Kg		98	67 - 128	9	30
1,1,2,2-Tetrachloroethane	20.0	17.6		ug/Kg		88	69 - 125	16	30
1,2,3-Trichlorobenzene	20.0	17.0		ug/Kg		85	57 - 131	17	30
o-Xylene	20.0	16.2		ug/Kg		81	75 - 120	19	30
1,2-Dichlorobenzene	20.0	16.4		ug/Kg		82	76 - 120	17	30
1,2-Dibromo-3-Chloropropane	20.0	16.7		ug/Kg		83	48 - 134	14	30
Isopropylbenzene	20.0	16.7		ug/Kg		83	77 - 120	19	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	107		54 - 135
4-Bromofluorobenzene (Surr)	101		50 - 131
Dibromofluoromethane (Surr)	105		50 - 141
Toluene-d8 (Surr)	97		52 - 141

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

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

Lab Sample ID: MB 410-197744/1-A

Matrix: Solid

Analysis Batch: 197958

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 197744

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1'-Biphenyl	17	U	37	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
1,2,4,5-Tetrachlorobenzene	17	U	37	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
2,2'-oxybis[1-chloropropane]	20	U	43	20	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
2,3,4,6-Tetrachlorophenol	67	U	170	67	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
2,4,5-Trichlorophenol	17	U	37	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
2,4,6-Trichlorophenol	17	U	37	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
2,4-Dichlorophenol	20	U	43	20	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
2,4-Dimethylphenol	17	U	37	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
2,4-Dinitrophenol	170	U	1000	170	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
2,4-Dinitrotoluene	33	U	170	33	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
2,6-Dinitrotoluene	17	U	37	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
2-Chloronaphthalene	13	U	33	13	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
2-Chlorophenol	17	U	37	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
2-Methylnaphthalene	5.0	U	17	5.0	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
2-Methylphenol	20	U	50	20	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
2-Nitroaniline	17	U	50	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
2-Nitrophenol	20	U	50	20	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
3,3'-Dichlorobenzidine	33	U	170	33	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
3-Nitroaniline	33	U	170	33	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
4,6-Dinitro-2-methylphenol	170	U	500	170	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
4-Bromophenyl-phenylether	17	U	37	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
4-Chloro-3-methylphenol	20	U	50	20	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
4-Methylphenol	17	U	50	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
4-Nitroaniline	33	U	170	33	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
4-Nitrophenol	170	U	500	170	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Acenaphthene	3.3	U	17	3.3	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Acenaphthylene	4.0	U	17	4.0	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Acetophenone	17	U	50	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Anthracene	3.3	U	17	3.3	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Atrazine	67	U	170	67	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Benzaldehyde	33	U	170	33	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Benzo[a]anthracene	3.3	U	17	3.3	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Benzo[a]pyrene	3.3	U	17	3.3	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Benzo[b]fluoranthene	3.3	U	17	3.3	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Benzo[g,h,i]perylene	3.3	U	17	3.3	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Benzo[k]fluoranthene	3.3	U	17	3.3	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Bis(2-chloroethoxy)methane	17	U	37	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Bis(2-chloroethyl)ether	17	U	37	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Bis(2-ethylhexyl) phthalate	67	U	170	67	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Butylbenzylphthalate	67	U	170	67	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Caprolactam	33	U	170	33	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Carbazole	17	U	37	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Chrysene	3.3	U	17	3.3	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Di-n-butyl phthalate	67	U	170	67	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Di-n-octyl phthalate	67	U	170	67	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Dibenz(a,h)anthracene	6.7	U	17	6.7	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Dibenzofuran	17	U	37	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Diethyl phthalate	67	U	170	67	ug/Kg		11/22/21 16:36	11/23/21 13:12	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

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

Lab Sample ID: MB 410-197744/1-A

Matrix: Solid

Analysis Batch: 197958

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 197744

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dimethyl phthalate	67	U	170	67	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Fluoranthene	3.3	U	17	3.3	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Fluorene	3.3	U	17	3.3	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Hexachlorobenzene	6.7	U	17	6.7	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Hexachlorobutadiene	20	U	50	20	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Hexachlorocyclopentadiene	170	U	500	170	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Hexachloroethane	33	U	170	33	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Indeno[1,2,3-cd]pyrene	4.0	U	17	4.0	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Isophorone	17	U	67	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
N-Nitrosodi-n-propylamine	33	U	67	33	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
N-Nitrosodiphenylamine	17	U	37	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Naphthalene	6.7	U	17	6.7	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Nitrobenzene	17	U	37	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Phenanthrene	4.0	U	17	4.0	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Phenol	17	U	37	17	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Pyrene	3.3	U	17	3.3	ug/Kg		11/22/21 16:36	11/23/21 13:12	1
Pentachlorophenol	67	U	170	67	ug/Kg		11/22/21 16:36	11/23/21 13:12	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
p-Terphenyl-d14 (Surr)	99		45 - 108	11/22/21 16:36	11/23/21 13:12	1
Nitrobenzene-d5 (Surr)	78		32 - 97	11/22/21 16:36	11/23/21 13:12	1
2-Fluorophenol (Surr)	77		26 - 96	11/22/21 16:36	11/23/21 13:12	1
2-Fluorobiphenyl (Surr)	87		39 - 100	11/22/21 16:36	11/23/21 13:12	1
2,4,6-Tribromophenol (Surr)	92		13 - 121	11/22/21 16:36	11/23/21 13:12	1
Phenol-d5 (Surr)	75		27 - 104	11/22/21 16:36	11/23/21 13:12	1

Lab Sample ID: LCS 410-197744/2-A

Matrix: Solid

Analysis Batch: 197958

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 197744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	1670	1540		ug/Kg		93	60 - 120
2,2'-oxybis[1-chloropropane]	1670	1240		ug/Kg		74	48 - 120
2,3,4,6-Tetrachlorophenol	1670	1570		ug/Kg		94	59 - 120
2,4,5-Trichlorophenol	1670	1740		ug/Kg		104	61 - 120
2,4,6-Trichlorophenol	1670	1710		ug/Kg		102	59 - 120
2,4-Dichlorophenol	1670	1660		ug/Kg		99	62 - 120
2,4-Dimethylphenol	1670	1570		ug/Kg		94	65 - 120
2,4-Dinitrophenol	3330	3000		ug/Kg		90	44 - 120
2,4-Dinitrotoluene	1670	1590		ug/Kg		96	68 - 120
2,6-Dinitrotoluene	1670	1650		ug/Kg		99	67 - 120
2-Chloronaphthalene	1670	1600		ug/Kg		96	61 - 120
2-Chlorophenol	1670	1430		ug/Kg		86	59 - 120
2-Methylnaphthalene	1670	1480		ug/Kg		89	63 - 120
2-Methylphenol	1670	1520		ug/Kg		91	63 - 120
2-Nitroaniline	1670	1660		ug/Kg		100	64 - 120
2-Nitrophenol	1670	1590		ug/Kg		95	55 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

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

Lab Sample ID: LCS 410-197744/2-A

Matrix: Solid

Analysis Batch: 197958

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 197744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3,3'-Dichlorobenzidine	3330	1290		ug/Kg		39	19 - 120
3-Nitroaniline	1670	604		ug/Kg		36	31 - 120
4,6-Dinitro-2-methylphenol	3330	3240		ug/Kg		97	59 - 120
4-Bromophenyl-phenylether	1670	1660		ug/Kg		99	65 - 120
4-Chloro-3-methylphenol	1670	1570		ug/Kg		94	67 - 120
4-Methylphenol	1670	1430		ug/Kg		86	56 - 120
4-Nitroaniline	1670	1360		ug/Kg		82	59 - 120
4-Nitrophenol	3330	2880		ug/Kg		86	58 - 120
Acenaphthene	1670	1520		ug/Kg		91	61 - 120
Acenaphthylene	1670	1610		ug/Kg		96	69 - 120
Acetophenone	1670	1380		ug/Kg		83	54 - 120
Anthracene	1670	1660		ug/Kg		100	75 - 120
Atrazine	1670	1590		ug/Kg		95	63 - 127
Benzaldehyde	1670	1000		ug/Kg		60	25 - 120
Benzo[a]anthracene	1670	1620		ug/Kg		97	73 - 120
Benzo[a]pyrene	1670	1720		ug/Kg		103	80 - 123
Benzo[b]fluoranthene	1670	1620		ug/Kg		97	63 - 120
Benzo[g,h,i]perylene	1670	1730		ug/Kg		104	77 - 120
Benzo[k]fluoranthene	1670	1550		ug/Kg		93	68 - 120
Bis(2-chloroethoxy)methane	1670	1440		ug/Kg		86	55 - 120
Bis(2-chloroethyl)ether	1670	1310		ug/Kg		79	49 - 120
Bis(2-ethylhexyl) phthalate	1670	1530		ug/Kg		92	65 - 120
Butylbenzylphthalate	1670	1510		ug/Kg		90	66 - 120
Caprolactam	1670	1710		ug/Kg		103	54 - 120
Carbazole	1670	1650		ug/Kg		99	74 - 120
Chrysene	1670	1580		ug/Kg		95	66 - 120
Di-n-butyl phthalate	1670	1610		ug/Kg		97	65 - 120
Di-n-octyl phthalate	1670	1640		ug/Kg		98	60 - 125
Dibenz(a,h)anthracene	1670	1720		ug/Kg		103	72 - 120
Dibenzofuran	1670	1530		ug/Kg		92	68 - 120
Diethyl phthalate	1670	1510		ug/Kg		91	65 - 120
Dimethyl phthalate	1670	1530		ug/Kg		92	67 - 120
Fluoranthene	1670	1670		ug/Kg		100	71 - 120
Fluorene	1670	1550		ug/Kg		93	68 - 120
Hexachlorobenzene	1670	1570		ug/Kg		94	58 - 120
Hexachlorobutadiene	1670	1410		ug/Kg		84	48 - 120
Hexachlorocyclopentadiene	1670	1380		ug/Kg		83	43 - 120
Hexachloroethane	1670	1230		ug/Kg		74	48 - 120
Indeno[1,2,3-cd]pyrene	1670	1700		ug/Kg		102	71 - 122
Isophorone	1670	1480		ug/Kg		89	62 - 120
N-Nitrosodi-n-propylamine	1670	1380		ug/Kg		83	55 - 120
N-Nitrosodiphenylamine	1420	1470		ug/Kg		104	71 - 120
Naphthalene	1670	1440		ug/Kg		86	60 - 120
Nitrobenzene	1670	1360		ug/Kg		81	56 - 120
Phenanthrene	1670	1600		ug/Kg		96	74 - 120
Phenol	1670	1440		ug/Kg		87	57 - 120
Pyrene	1670	1580		ug/Kg		95	70 - 120
Pentachlorophenol	3330	3350		ug/Kg		101	41 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

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

Lab Sample ID: LCS 410-197744/2-A

Matrix: Solid

Analysis Batch: 197958

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 197744

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
p-Terphenyl-d14 (Surr)	97		45 - 108
Nitrobenzene-d5 (Surr)	79		32 - 97
2-Fluorophenol (Surr)	82		26 - 96
2-Fluorobiphenyl (Surr)	87		39 - 100
2,4,6-Tribromophenol (Surr)	94		13 - 121
Phenol-d5 (Surr)	82		27 - 104

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-196699/1-A

Matrix: Solid

Analysis Batch: 197127

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 196699

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin (1C)	0.17	U	0.83	0.17	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
alpha-BHC (2C)	0.17	U	0.83	0.17	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
alpha-Chlordane (1C)	0.17	U	0.83	0.17	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
beta-BHC (1C)	0.44	U	1.0	0.44	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
delta-BHC (1C)	0.45	U	1.0	0.45	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Dieldrin (1C)	0.33	U	1.7	0.33	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Endosulfan I (1C)	0.22	U	0.83	0.22	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Endosulfan II (1C)	1.1	U	2.3	1.1	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Endosulfan sulfate (1C)	0.33	U	1.7	0.33	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Endrin (2C)	0.68	U	1.7	0.68	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Endrin aldehyde (1C)	0.33	U	1.7	0.33	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Endrin ketone (1C)	0.60	U	2.0	0.60	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
gamma-BHC (Lindane) (1C)	0.21	U	0.83	0.21	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
gamma-Chlordane (1C)	0.25	U	0.83	0.25	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Heptachlor (1C)	0.31	U	0.83	0.31	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Heptachlor epoxide (1C)	0.17	U	0.83	0.17	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Methoxychlor (1C)	1.8	U	6.7	1.8	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Toxaphene (1C)	14	U	33	14	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
p,p'-DDD (1C)	0.33	U	1.7	0.33	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
p,p'-DDE (1C)	0.33	U	1.7	0.33	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
p,p'-DDT (1C)	0.79	U	1.7	0.79	ug/Kg		11/19/21 10:00	11/20/21 12:25	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	82		54 - 143	11/19/21 10:00	11/20/21 12:25	1
DCB Decachlorobiphenyl (Surr) (2C)	86		54 - 143	11/19/21 10:00	11/20/21 12:25	1
Tetrachloro-m-xylene (Surr) (1C)	70		20 - 131	11/19/21 10:00	11/20/21 12:25	1
Tetrachloro-m-xylene (Surr) (2C)	71		20 - 131	11/19/21 10:00	11/20/21 12:25	1

Lab Sample ID: LCS 410-196699/2-A

Matrix: Solid

Analysis Batch: 197127

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 196699

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Aldrin (1C)	3.38	2.79		ug/Kg		83	56 - 134

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

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

Lab Sample ID: LCS 410-196699/2-A

Matrix: Solid

Analysis Batch: 197127

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 196699

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha-BHC (2C)	3.38	2.77		ug/Kg		82	55 - 135
beta-BHC (2C)	3.33	2.87		ug/Kg		86	50 - 132
delta-BHC (1C)	3.33	2.97		ug/Kg		89	47 - 141
Dieldrin (2C)	6.67	5.94		ug/Kg		89	54 - 136
Endosulfan I (2C)	3.38	2.93		ug/Kg		87	51 - 124
Endosulfan II (2C)	6.71	5.85		ug/Kg		87	56 - 125
Endosulfan sulfate (2C)	6.71	5.63		ug/Kg		84	56 - 125
Endrin (1C)	6.67	6.31		ug/Kg		95	56 - 129
Endrin aldehyde (1C)	6.71	4.92		ug/Kg		73	46 - 133
Endrin ketone (2C)	6.67	5.65		ug/Kg		85	55 - 128
gamma-BHC (Lindane) (2C)	3.33	2.76		ug/Kg		83	52 - 138
Heptachlor (2C)	3.38	2.74		ug/Kg		81	52 - 139
Heptachlor epoxide (2C)	3.33	2.97		ug/Kg		89	55 - 133
Methoxychlor (1C)	33.6	30.6		ug/Kg		91	54 - 148
p,p'-DDD (1C)	6.71	6.50		ug/Kg		97	59 - 135
p,p'-DDE (1C)	6.71	6.14		ug/Kg		92	57 - 135
p,p'-DDT (2C)	6.71	6.48		ug/Kg		97	53 - 151

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	85		54 - 143
DCB Decachlorobiphenyl (Surr) (2C)	85		54 - 143
Tetrachloro-m-xylene (Surr) (1C)	65		20 - 131
Tetrachloro-m-xylene (Surr) (2C)	65		20 - 131

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

Lab Sample ID: MB 410-196700/1-A

Matrix: Solid

Analysis Batch: 197389

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 196700

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	5.3	U	17	5.3	ug/Kg		11/19/21 10:00	11/21/21 21:40	1
PCB-1221 (2C)	5.3	U	17	5.3	ug/Kg		11/19/21 10:00	11/21/21 21:40	1
PCB-1232 (2C)	5.3	U	17	5.3	ug/Kg		11/19/21 10:00	11/21/21 21:40	1
PCB-1242 (2C)	5.3	U	17	5.3	ug/Kg		11/19/21 10:00	11/21/21 21:40	1
PCB-1248 (2C)	5.3	U	17	5.3	ug/Kg		11/19/21 10:00	11/21/21 21:40	1
PCB-1254 (2C)	6.4	U	17	6.4	ug/Kg		11/19/21 10:00	11/21/21 21:40	1
PCB-1260 (2C)	6.4	U	17	6.4	ug/Kg		11/19/21 10:00	11/21/21 21:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	122		45 - 143	11/19/21 10:00	11/21/21 21:40	1
DCB Decachlorobiphenyl (Surr) (2C)	105		45 - 143	11/19/21 10:00	11/21/21 21:40	1
Tetrachloro-m-xylene (1C)	101		53 - 140	11/19/21 10:00	11/21/21 21:40	1
Tetrachloro-m-xylene (2C)	89		53 - 140	11/19/21 10:00	11/21/21 21:40	1

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

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

Lab Sample ID: LCS 410-196700/2-A
Matrix: Solid
Analysis Batch: 197389

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196700

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016 (2C)	167	125		ug/Kg		75	68 - 121
PCB-1260 (2C)	168	157		ug/Kg		93	75 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	121		45 - 143
DCB Decachlorobiphenyl (Surr) (2C)	107		45 - 143
Tetrachloro-m-xylene (1C)	98		53 - 140
Tetrachloro-m-xylene (2C)	86		53 - 140

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-195597/1-A
Matrix: Solid
Analysis Batch: 197792

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 195597

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.7	U	5.0	1.7	mg/Kg		11/16/21 22:04	11/22/21 17:03	1
Arsenic	1.4	U	3.0	1.4	mg/Kg		11/16/21 22:04	11/22/21 17:03	1
Barium	0.395	J	0.50	0.15	mg/Kg		11/16/21 22:04	11/22/21 17:03	1
Beryllium	0.10	U	0.50	0.10	mg/Kg		11/16/21 22:04	11/22/21 17:03	1
Cadmium	0.10	U	0.50	0.10	mg/Kg		11/16/21 22:04	11/22/21 17:03	1
Calcium	17.0	J	50	12	mg/Kg		11/16/21 22:04	11/22/21 17:03	1
Chromium	0.18	U	1.5	0.18	mg/Kg		11/16/21 22:04	11/22/21 17:03	1
Cobalt	0.15	U	0.50	0.15	mg/Kg		11/16/21 22:04	11/22/21 17:03	1
Iron	6.2	U	20	6.2	mg/Kg		11/16/21 22:04	11/22/21 17:03	1
Lead	0.60	U	1.5	0.60	mg/Kg		11/16/21 22:04	11/22/21 17:03	1
Magnesium	4.52	J	10	4.0	mg/Kg		11/16/21 22:04	11/22/21 17:03	1
Manganese	0.52	U	1.0	0.52	mg/Kg		11/16/21 22:04	11/22/21 17:03	1
Nickel	0.26	U	1.0	0.26	mg/Kg		11/16/21 22:04	11/22/21 17:03	1
Selenium	1.5	U	5.0	1.5	mg/Kg		11/16/21 22:04	11/22/21 17:03	1
Silver	0.40	U ^5- ^3+	1.0	0.40	mg/Kg		11/16/21 22:04	11/22/21 17:03	1
Thallium	1.3	U ^5+	3.0	1.3	mg/Kg		11/16/21 22:04	11/22/21 17:03	1
Vanadium	0.43	U	1.0	0.43	mg/Kg		11/16/21 22:04	11/22/21 17:03	1

Lab Sample ID: MB 410-195597/1-A
Matrix: Solid
Analysis Batch: 198756

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 195597

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11	U	20	11	mg/Kg		11/16/21 22:04	11/24/21 16:16	1
Copper	0.77	U	2.0	0.77	mg/Kg		11/16/21 22:04	11/24/21 16:16	1
Potassium	20	U	50	20	mg/Kg		11/16/21 22:04	11/24/21 16:16	1
Sodium	46	U	100	46	mg/Kg		11/16/21 22:04	11/24/21 16:16	1
Zinc	1.0	U ^3+	2.0	1.0	mg/Kg		11/16/21 22:04	11/24/21 16:16	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

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

Lab Sample ID: LCS 410-195597/2-A
Matrix: Solid
Analysis Batch: 197792

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 195597

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Antimony	10.0	10.2		mg/Kg		102	80 - 120	
Arsenic	50.0	51.1		mg/Kg		102	80 - 120	
Barium	50.0	52.8		mg/Kg		106	80 - 120	
Beryllium	5.00	5.20		mg/Kg		104	80 - 120	
Cadmium	5.00	5.42		mg/Kg		108	80 - 120	
Calcium	500	530		mg/Kg		106	80 - 120	
Chromium	50.0	54.0		mg/Kg		108	80 - 120	
Cobalt	50.0	54.5		mg/Kg		109	80 - 120	
Iron	500	520		mg/Kg		104	80 - 120	
Lead	5.00	5.45		mg/Kg		109	80 - 120	
Magnesium	500	506		mg/Kg		101	80 - 120	
Manganese	50.0	52.8		mg/Kg		106	80 - 120	
Nickel	50.0	54.4		mg/Kg		109	80 - 120	
Selenium	10.0	10.5		mg/Kg		105	80 - 120	
Silver	5.00	5.81	^5- ^3+	mg/Kg		116	80 - 120	
Thallium	9.99	11.6	^5+	mg/Kg		116	80 - 120	
Vanadium	50.0	52.8		mg/Kg		106	80 - 120	

Lab Sample ID: LCS 410-195597/2-A
Matrix: Solid
Analysis Batch: 198756

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 195597

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Aluminum	500	511		mg/Kg		102	80 - 120	
Copper	50.0	53.4		mg/Kg		107	80 - 120	
Potassium	500	519		mg/Kg		104	80 - 120	
Sodium	500	514		mg/Kg		103	80 - 120	

Lab Sample ID: LCS 410-195597/2-A
Matrix: Solid
Analysis Batch: 199153

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 195597

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Zinc	50.0	50.7		mg/Kg		101	80 - 120	

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-195048/1-A
Matrix: Solid
Analysis Batch: 196636

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 195048

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.025	U	0.060	0.025	mg/Kg		11/15/21 22:03	11/18/21 17:55	1

Lab Sample ID: LCS 410-195048/2-A
Matrix: Solid
Analysis Batch: 196636

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 195048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Mercury	0.167	0.177		mg/Kg		106	80 - 120	

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QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

GC/MS VOA

Prep Batch: 195534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63382-1	PS-04P (5.5-6.0)	Total/NA	Solid	5035	

Analysis Batch: 196746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63382-1	PS-04P (5.5-6.0)	Total/NA	Solid	8260C	195534
MB 410-196746/11	Method Blank	Total/NA	Solid	8260C	
LCS 410-196746/6	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-196746/7	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 197744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63382-1	PS-04P (5.5-6.0)	Total/NA	Solid	3546	
MB 410-197744/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-197744/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 197958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63382-1	PS-04P (5.5-6.0)	Total/NA	Solid	8270D	197744
MB 410-197744/1-A	Method Blank	Total/NA	Solid	8270D	197744
LCS 410-197744/2-A	Lab Control Sample	Total/NA	Solid	8270D	197744

GC Semi VOA

Prep Batch: 196699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63382-1	PS-04P (5.5-6.0)	Total/NA	Solid	3546	
MB 410-196699/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-196699/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 196700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63382-1	PS-04P (5.5-6.0)	Total/NA	Solid	3546	
MB 410-196700/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-196700/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 197127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63382-1	PS-04P (5.5-6.0)	Total/NA	Solid	8081B	196699
410-63382-1	PS-04P (5.5-6.0)	Total/NA	Solid	8081B	196699
MB 410-196699/1-A	Method Blank	Total/NA	Solid	8081B	196699
LCS 410-196699/2-A	Lab Control Sample	Total/NA	Solid	8081B	196699

Analysis Batch: 197389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63382-1	PS-04P (5.5-6.0)	Total/NA	Solid	8082A	196700
MB 410-196700/1-A	Method Blank	Total/NA	Solid	8082A	196700
LCS 410-196700/2-A	Lab Control Sample	Total/NA	Solid	8082A	196700

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

Metals

Prep Batch: 195048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63382-1	PS-04P (5.5-6.0)	Total/NA	Solid	7471B	
MB 410-195048/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-195048/2-A	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 195597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63382-1	PS-04P (5.5-6.0)	Total/NA	Solid	3050B	
MB 410-195597/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-195597/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 196636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63382-1	PS-04P (5.5-6.0)	Total/NA	Solid	7471B	195048
MB 410-195048/1-A	Method Blank	Total/NA	Solid	7471B	195048
LCS 410-195048/2-A	Lab Control Sample	Total/NA	Solid	7471B	195048

Analysis Batch: 197792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63382-1	PS-04P (5.5-6.0)	Total/NA	Solid	6010D	195597
MB 410-195597/1-A	Method Blank	Total/NA	Solid	6010D	195597
LCS 410-195597/2-A	Lab Control Sample	Total/NA	Solid	6010D	195597

Analysis Batch: 198756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63382-1	PS-04P (5.5-6.0)	Total/NA	Solid	6010D	195597
MB 410-195597/1-A	Method Blank	Total/NA	Solid	6010D	195597
LCS 410-195597/2-A	Lab Control Sample	Total/NA	Solid	6010D	195597

Analysis Batch: 199153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63382-1	PS-04P (5.5-6.0)	Total/NA	Solid	6010D	195597
LCS 410-195597/2-A	Lab Control Sample	Total/NA	Solid	6010D	195597

General Chemistry

Analysis Batch: 195229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63382-1	PS-04P (5.5-6.0)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

Client Sample ID: PS-04P (5.5-6.0)

Lab Sample ID: 410-63382-1

Date Collected: 11/15/21 08:00

Matrix: Solid

Date Received: 11/15/21 17:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	195229	11/16/21 09:17	UVJN	ELLE

Client Sample ID: PS-04P (5.5-6.0)

Lab Sample ID: 410-63382-1

Date Collected: 11/15/21 08:00

Matrix: Solid

Date Received: 11/15/21 17:57

Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			195534	11/16/21 18:05	UK3O	ELLE
Total/NA	Analysis	8260C		1	196746	11/19/21 14:37	ULCP	ELLE
Total/NA	Prep	3546			197744	11/22/21 16:37	D7SW	ELLE
Total/NA	Analysis	8270D		1	197958	11/23/21 15:42	SJ89	ELLE
Total/NA	Prep	3546			196699	11/19/21 10:00	H2LC	ELLE
Total/NA	Analysis	8081B		10	197127	11/20/21 17:24	WN7O	ELLE
Total/NA	Prep	3546			196699	11/19/21 10:00	H2LC	ELLE
Total/NA	Analysis	8081B		200	197127	11/20/21 17:44	WN7O	ELLE
Total/NA	Prep	3546			196700	11/19/21 10:00	H2LC	ELLE
Total/NA	Analysis	8082A		1	197389	11/21/21 23:46	JC94	ELLE
Total/NA	Prep	3050B			195597	11/16/21 22:04	UJLA	ELLE
Total/NA	Analysis	6010D		1	197792	11/22/21 17:57	T8CQ	ELLE
Total/NA	Prep	3050B			195597	11/16/21 22:04	UJLA	ELLE
Total/NA	Analysis	6010D		1	198756	11/24/21 17:50	T8CQ	ELLE
Total/NA	Prep	3050B			195597	11/16/21 22:04	UJLA	ELLE
Total/NA	Analysis	6010D		1	199153	11/29/21 11:58	WJM9	ELLE
Total/NA	Prep	7471B			195048	11/16/21 14:51	UJLA	ELLE
Total/NA	Analysis	7471B		1	196636	11/18/21 18:45	UEFS	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22

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
8260C	5035	Solid	m&p-Xylene
8260C	5035	Solid	o-Xylene
Moisture		Solid	Percent Moisture

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Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
6010D	Metals (ICP)	SW846	ELLE
7471B	Mercury (CVAA)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
7471B	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser Alexandria

Job ID: 410-63382-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-63382-1	PS-04P (5.5-6.0)	Solid	11/15/21 08:00	11/15/21 17:57

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Chain of Custody Record **Baltimore** eurofins
#201

Environment Test
TestAmerica

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Address: _____ 410-63382 Chain of Custody

Regulation: DW NPDES RCRA Other: VADEP

TAL-8210

Client Contact		Project Manager: <u>Paula Jurek</u>		Site Contact:		Date: <u>11/15/21</u>		COC No: <u>1</u>																					
Company Name: <u>RAUX ASSOCIATES</u>		Tel/Email: <u>ASUREN@raux.com</u>		Lab Contact:		Carrier:		<u>1</u> of <u>1</u> COCs																					
Address: <u>402 HERRON DRIVE</u>		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS TAT if different from Below <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day																											
City/State/Zip: <u>IRVING TWP. NJ 07035</u>																													
Phone: <u>908-423-8800</u>																													
Fax:																													
Project Name: <u>MUSEUM ALEXANDRIA</u>																													
Site: <u>Alexandria, VA</u>		P O #		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix		# of Cont.		Filtered Sample (Y/N)		Perform MS/MSD (Y/N)		Sample Specific Notes:											
PS-04P (5.5-6.0)		11/15/21 0800		G		Soil		6						X X X X X X		TCL VOCs TCL SVOCs PESTICIDES TALL METALS PCBs Mercury													
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other																													
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown										<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months																			
Special Instructions/QC Requirements & Comments:																													
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No					Custody Seal No.:					Cooler Temp. (°C): Obs'd: <u>4.5</u> Corr'd: <u>5.1</u>					Therm ID No.: <u>#1013002000</u>														
Relinquished by: <u>[Signature]</u>					Company: <u>Raux</u>					Date/Time: _____					Received by: <u>[Signature]</u>					Company: <u>ETA B&W</u>					Date/Time: <u>11/15/21 0800</u>				
Relinquished by: <u>[Signature]</u>					Company: <u>ETA B&W</u>					Date/Time: <u>11/15/21</u>					Received by: <u>[Signature]</u>					Company: <u>ELLE</u>					Date/Time: <u>11/15/21 14:18</u>				
Relinquished by: <u>[Signature]</u>					Company: <u>ELLE</u>					Date/Time: <u>11/15/21 17:30</u>					Received in Laboratory by: <u>[Signature]</u>					Company: <u>ELLE</u>					Date/Time: <u>11/15/21 17:57</u>				

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Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-63382-1

Login Number: 63382

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Slagle, Vaiyanna

Question	Answer	Comment
The cooler's custody seal is 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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-63750-1
Client Project/Site: Mueser - Alexandria

For:
Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
11/30/2021 8:17:47 PM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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Kelly Tessier

Kelly Tessier
Project Manager
11/30/2021 8:17:47 PM



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Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*1	LCS/LCSD 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.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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
PQL	Practical Quantitation Limit
PRES	Presumptive

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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

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Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Job ID: 410-63750-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-63750-1

Receipt

The samples were received on 11/17/2021 5:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.1°C

GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-197458 recovered outside acceptance criteria, low biased, for Cyclohexane and Methylcyclohexane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

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

GC/MS Semi VOA

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

PCBs

Method 8082A: The continuing calibration verification (CCV) associated with batch 410-197389 recovered above the upper control limit for DCB Decachlorobiphenyl (Surr) on one column. Results are confirmed on both columns and reported from the passing column. G1-15P (7.0-7.5) (410-63750-1) and G1-14 (6.5-7.0) (410-63750-2).

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

Pesticides

Method 8081B: Surrogate recovery for the following sample was outside control limits: G1-15P (7.0-7.5) (410-63750-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8081B: The following samples were diluted due to the nature of the sample matrix: G1-15P (7.0-7.5) (410-63750-1) and G1-14 (6.5-7.0) (410-63750-2). Elevated reporting limits (RLs) are provided.

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

Metals

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.

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Client Sample ID: G1-15P (7.0-7.5)

Lab Sample ID: 410-63750-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	24		20	6.1	ug/Kg	1	*	*	8260C	Total/NA
2-Butanone	4.4	J	10	2.0	ug/Kg	1	*	*	8260C	Total/NA
2-Methylnaphthalene	61		20	5.8	ug/Kg	1	*	*	8270D	Total/NA
4-Methylphenol	46	J	59	20	ug/Kg	1	*	*	8270D	Total/NA
Acenaphthylene	17	J	20	4.7	ug/Kg	1	*	*	8270D	Total/NA
Acetophenone	21	J	59	20	ug/Kg	1	*	*	8270D	Total/NA
Anthracene	22		20	3.9	ug/Kg	1	*	*	8270D	Total/NA
Benzaldehyde	90	J	200	39	ug/Kg	1	*	*	8270D	Total/NA
Benzo[a]anthracene	60		20	3.9	ug/Kg	1	*	*	8270D	Total/NA
Benzo[a]pyrene	72		20	3.9	ug/Kg	1	*	*	8270D	Total/NA
Benzo[b]fluoranthene	98		20	3.9	ug/Kg	1	*	*	8270D	Total/NA
Benzo[g,h,i]perylene	67		20	3.9	ug/Kg	1	*	*	8270D	Total/NA
Benzo[k]fluoranthene	33		20	3.9	ug/Kg	1	*	*	8270D	Total/NA
Chrysene	81		20	3.9	ug/Kg	1	*	*	8270D	Total/NA
Dibenz(a,h)anthracene	19	J	20	7.8	ug/Kg	1	*	*	8270D	Total/NA
Dibenzofuran	21	J	43	20	ug/Kg	1	*	*	8270D	Total/NA
Fluoranthene	110		20	3.9	ug/Kg	1	*	*	8270D	Total/NA
Fluorene	13	J	20	3.9	ug/Kg	1	*	*	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	54		20	4.7	ug/Kg	1	*	*	8270D	Total/NA
Naphthalene	44		20	7.8	ug/Kg	1	*	*	8270D	Total/NA
Phenanthrene	100		20	4.7	ug/Kg	1	*	*	8270D	Total/NA
Phenol	21	J	43	20	ug/Kg	1	*	*	8270D	Total/NA
Pyrene	92		20	3.9	ug/Kg	1	*	*	8270D	Total/NA
alpha-BHC (2C)	4.4	J p	9.7	2.0	ug/Kg	10	*	*	8081B	Total/NA
Endosulfan I (1C)	5.8	J p	9.7	2.6	ug/Kg	10	*	*	8081B	Total/NA
gamma-BHC (Lindane) (1C)	7.0	J p	9.7	2.5	ug/Kg	10	*	*	8081B	Total/NA
p,p'-DDE (2C)	5.5	J	20	3.9	ug/Kg	10	*	*	8081B	Total/NA
Aluminum	8900		20	10	mg/Kg	1	*	*	6010D	Total/NA
Arsenic	4.1		2.9	1.4	mg/Kg	1	*	*	6010D	Total/NA
Barium	75		0.49	0.15	mg/Kg	1	*	*	6010D	Total/NA
Beryllium	0.55		0.49	0.098	mg/Kg	1	*	*	6010D	Total/NA
Cadmium	0.20	J	0.49	0.098	mg/Kg	1	*	*	6010D	Total/NA
Calcium	14000		49	12	mg/Kg	1	*	*	6010D	Total/NA
Chromium	15		1.5	0.18	mg/Kg	1	*	*	6010D	Total/NA
Cobalt	6.6		0.49	0.14	mg/Kg	1	*	*	6010D	Total/NA
Copper	23		2.0	0.75	mg/Kg	1	*	*	6010D	Total/NA
Iron	15000		20	6.1	mg/Kg	1	*	*	6010D	Total/NA
Lead	49		1.5	0.59	mg/Kg	1	*	*	6010D	Total/NA
Magnesium	1700	^5-	9.8	3.9	mg/Kg	1	*	*	6010D	Total/NA
Manganese	260		0.98	0.51	mg/Kg	1	*	*	6010D	Total/NA
Nickel	12	B	0.98	0.25	mg/Kg	1	*	*	6010D	Total/NA
Potassium	1500		49	20	mg/Kg	1	*	*	6010D	Total/NA
Sodium	130		98	45	mg/Kg	1	*	*	6010D	Total/NA
Zinc	62		2.0	0.98	mg/Kg	1	*	*	6010D	Total/NA
Vanadium	21		0.98	0.42	mg/Kg	1	*	*	6010D	Total/NA
Mercury	0.14		0.068	0.028	mg/Kg	1	*	*	7471B	Total/NA

Client Sample ID: G1-14 (6.5-7.0)

Lab Sample ID: 410-63750-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	9.0	J	23	6.9	ug/Kg	1	*	*	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Client Sample ID: G1-14 (6.5-7.0) (Continued)

Lab Sample ID: 410-63750-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1'-Biphenyl	250		47	21	ug/Kg	1	*	*	8270D	Total/NA
2-Methylnaphthalene	1300		21	6.4	ug/Kg	1	*	*	8270D	Total/NA
2-Methylphenol	30	J	64	26	ug/Kg	1	*	*	8270D	Total/NA
4-Methylphenol	95		64	21	ug/Kg	1	*	*	8270D	Total/NA
Acenaphthene	100		21	4.3	ug/Kg	1	*	*	8270D	Total/NA
Acenaphthylene	110		21	5.1	ug/Kg	1	*	*	8270D	Total/NA
Anthracene	330		21	4.3	ug/Kg	1	*	*	8270D	Total/NA
Benzaldehyde	120	J	210	43	ug/Kg	1	*	*	8270D	Total/NA
Benzo[a]anthracene	870		21	4.3	ug/Kg	1	*	*	8270D	Total/NA
Benzo[a]pyrene	1200		21	4.3	ug/Kg	1	*	*	8270D	Total/NA
Benzo[b]fluoranthene	1300		21	4.3	ug/Kg	1	*	*	8270D	Total/NA
Benzo[g,h,i]perylene	840		21	4.3	ug/Kg	1	*	*	8270D	Total/NA
Benzo[k]fluoranthene	410		21	4.3	ug/Kg	1	*	*	8270D	Total/NA
Carbazole	230		47	21	ug/Kg	1	*	*	8270D	Total/NA
Chrysene	1300		21	4.3	ug/Kg	1	*	*	8270D	Total/NA
Dibenz(a,h)anthracene	280		21	8.5	ug/Kg	1	*	*	8270D	Total/NA
Dibenzofuran	300		47	21	ug/Kg	1	*	*	8270D	Total/NA
Fluoranthene	1500		21	4.3	ug/Kg	1	*	*	8270D	Total/NA
Fluorene	440		21	4.3	ug/Kg	1	*	*	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	760		21	5.1	ug/Kg	1	*	*	8270D	Total/NA
Naphthalene	1000		21	8.5	ug/Kg	1	*	*	8270D	Total/NA
Phenanthrene	2100		21	5.1	ug/Kg	1	*	*	8270D	Total/NA
Pyrene	1200		21	4.3	ug/Kg	1	*	*	8270D	Total/NA
Aluminum	15000		19	10	mg/Kg	1	*	*	6010D	Total/NA
Arsenic	5.7		2.8	1.3	mg/Kg	1	*	*	6010D	Total/NA
Barium	110		0.47	0.14	mg/Kg	1	*	*	6010D	Total/NA
Beryllium	0.90		0.47	0.094	mg/Kg	1	*	*	6010D	Total/NA
Cadmium	0.39	J	0.47	0.094	mg/Kg	1	*	*	6010D	Total/NA
Calcium	2500		47	11	mg/Kg	1	*	*	6010D	Total/NA
Chromium	19		1.4	0.17	mg/Kg	1	*	*	6010D	Total/NA
Cobalt	10		0.47	0.14	mg/Kg	1	*	*	6010D	Total/NA
Copper	26		1.9	0.73	mg/Kg	1	*	*	6010D	Total/NA
Iron	21000		19	5.8	mg/Kg	1	*	*	6010D	Total/NA
Lead	40		1.4	0.57	mg/Kg	1	*	*	6010D	Total/NA
Magnesium	2000	^5-	9.4	3.8	mg/Kg	1	*	*	6010D	Total/NA
Manganese	370		0.94	0.49	mg/Kg	1	*	*	6010D	Total/NA
Nickel	19	B	0.94	0.25	mg/Kg	1	*	*	6010D	Total/NA
Potassium	1900		47	19	mg/Kg	1	*	*	6010D	Total/NA
Sodium	78	J	94	44	mg/Kg	1	*	*	6010D	Total/NA
Zinc	81		1.9	0.94	mg/Kg	1	*	*	6010D	Total/NA
Vanadium	34		0.94	0.41	mg/Kg	1	*	*	6010D	Total/NA
Mercury	0.21		0.077	0.032	mg/Kg	1	*	*	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Client Sample ID: G1-15P (7.0-7.5)

Lab Sample ID: 410-63750-1

Date Collected: 11/17/21 09:55

Matrix: Solid

Date Received: 11/17/21 17:15

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.40	U	5.1	0.40	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
trans-1,3-Dichloropropene	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Ethylbenzene	0.40	U	5.1	0.40	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Styrene	0.40	U	5.1	0.40	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
1,4-Dichlorobenzene	0.40	U	5.1	0.40	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
1,2-Dibromoethane	0.40	U	5.1	0.40	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
1,2-Dichloroethane	0.61	U	5.1	0.61	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
4-Methyl-2-pentanone	1.0	U	10	1.0	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Methylcyclohexane	0.61	U	5.1	0.61	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Toluene	0.61	U	5.1	0.61	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Chlorobenzene	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Cyclohexane	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
1,2,4-Trichlorobenzene	5.1	U	10	5.1	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
1,4-Dioxane	37	U	250	37	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Dibromochloromethane	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Tetrachloroethene	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
cis-1,2-Dichloroethene	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
trans-1,2-Dichloroethene	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Methyl tertiary butyl ether	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
m&p-Xylene	1.0	U	5.1	1.0	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
1,3-Dichlorobenzene	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Carbon tetrachloride	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
2-Hexanone	1.0	U	10	1.0	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Acetone	24		20	6.1	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Chloroform	0.61	U	5.1	0.61	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Benzene	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
1,1,1-Trichloroethane	0.61	U	5.1	0.61	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Bromomethane	0.71	U	5.1	0.71	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Chloromethane	0.61	U	5.1	0.61	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Bromochloromethane	0.61	U	5.1	0.61	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Chloroethane	1.0	U	5.1	1.0	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Vinyl chloride	0.61	U	5.1	0.61	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Methylene Chloride	2.0	U	5.1	2.0	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Carbon disulfide	0.61	U	5.1	0.61	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Bromoform	5.1	U	10	5.1	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Bromodichloromethane	0.40	U	5.1	0.40	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
1,1-Dichloroethane	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
1,1-Dichloroethene	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Trichlorofluoromethane	0.71	U *1	5.1	0.71	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Dichlorodifluoromethane	0.61	U	5.1	0.61	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Freon 113	0.61	U	10	0.61	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
1,2-Dichloropropane	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
2-Butanone	4.4	J	10	2.0	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
1,1,2-Trichloroethane	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Trichloroethene	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Methyl acetate	1.0	U	5.1	1.0	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
1,1,2,2-Tetrachloroethane	0.40	U	5.1	0.40	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
1,2,3-Trichlorobenzene	5.1	U	10	5.1	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
o-Xylene	0.40	U	5.1	0.40	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Client Sample ID: G1-15P (7.0-7.5)

Lab Sample ID: 410-63750-1

Date Collected: 11/17/21 09:55

Matrix: Solid

Date Received: 11/17/21 17:15

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
1,2-Dibromo-3-Chloropropane	0.51	U	5.1	0.51	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Isopropylbenzene	0.40	U	5.1	0.40	ug/Kg	☼	11/18/21 18:35	11/22/21 18:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		54 - 135				11/18/21 18:35	11/22/21 18:23	1
4-Bromofluorobenzene (Surr)	95		50 - 131				11/18/21 18:35	11/22/21 18:23	1
Dibromofluoromethane (Surr)	104		50 - 141				11/18/21 18:35	11/22/21 18:23	1
Toluene-d8 (Surr)	99		52 - 141				11/18/21 18:35	11/22/21 18:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	20	U	43	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
1,2,4,5-Tetrachlorobenzene	20	U	43	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
2,2'-oxybis[1-chloropropane]	23	U	51	23	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
2,3,4,6-Tetrachlorophenol	78	U	200	78	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
2,4,5-Trichlorophenol	20	U	43	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
2,4,6-Trichlorophenol	20	U	43	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
2,4-Dichlorophenol	23	U	51	23	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
2,4-Dimethylphenol	20	U	43	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
2,4-Dinitrophenol	200	U	1200	200	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
2,4-Dinitrotoluene	39	U	200	39	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
2,6-Dinitrotoluene	20	U	43	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
2-Chloronaphthalene	16	U	39	16	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
2-Chlorophenol	20	U	43	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
2-Methylnaphthalene	61		20	5.8	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
2-Methylphenol	23	U	59	23	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
2-Nitroaniline	20	U	59	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
2-Nitrophenol	23	U	59	23	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
3,3'-Dichlorobenzidine	39	U	200	39	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
3-Nitroaniline	39	U	200	39	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
4,6-Dinitro-2-methylphenol	200	U	590	200	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
4-Bromophenyl-phenylether	20	U	43	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
4-Chloro-3-methylphenol	23	U	59	23	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
4-Methylphenol	46	J	59	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
4-Nitroaniline	39	U	200	39	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
4-Nitrophenol	200	U	590	200	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Acenaphthene	3.9	U	20	3.9	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Acenaphthylene	17	J	20	4.7	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Acetophenone	21	J	59	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Anthracene	22		20	3.9	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Atrazine	78	U	200	78	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Benzaldehyde	90	J	200	39	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Benzo[a]anthracene	60		20	3.9	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Benzo[a]pyrene	72		20	3.9	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Benzo[b]fluoranthene	98		20	3.9	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Benzo[g,h,i]perylene	67		20	3.9	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Benzo[k]fluoranthene	33		20	3.9	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Bis(2-chloroethoxy)methane	20	U	43	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Bis(2-chloroethyl)ether	20	U	43	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Client Sample ID: G1-15P (7.0-7.5)

Lab Sample ID: 410-63750-1

Date Collected: 11/17/21 09:55

Matrix: Solid

Date Received: 11/17/21 17:15

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	78	U	200	78	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Butylbenzylphthalate	78	U	200	78	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Caprolactam	39	U	200	39	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Carbazole	20	U	43	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Chrysene	81		20	3.9	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Di-n-butyl phthalate	78	U	200	78	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Di-n-octyl phthalate	78	U	200	78	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Dibenz(a,h)anthracene	19 J		20	7.8	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Dibenzofuran	21 J		43	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Diethyl phthalate	78	U	200	78	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Dimethyl phthalate	78	U	200	78	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Fluoranthene	110		20	3.9	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Fluorene	13 J		20	3.9	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Hexachlorobenzene	7.8	U	20	7.8	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Hexachlorobutadiene	23	U	59	23	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Hexachlorocyclopentadiene	200	U	590	200	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Hexachloroethane	39	U	200	39	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Indeno[1,2,3-cd]pyrene	54		20	4.7	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Isophorone	20	U	78	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
N-Nitrosodi-n-propylamine	39	U	78	39	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
N-Nitrosodiphenylamine	20	U	43	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Naphthalene	44		20	7.8	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Nitrobenzene	20	U	43	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Phenanthrene	100		20	4.7	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Phenol	21 J		43	20	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Pyrene	92		20	3.9	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1
Pentachlorophenol	78	U	200	78	ug/Kg	☼	11/23/21 19:25	11/25/21 00:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	94		45 - 108	11/23/21 19:25	11/25/21 00:26	1
Nitrobenzene-d5 (Surr)	77		32 - 97	11/23/21 19:25	11/25/21 00:26	1
2-Fluorophenol (Surr)	80		26 - 96	11/23/21 19:25	11/25/21 00:26	1
2-Fluorobiphenyl (Surr)	85		39 - 100	11/23/21 19:25	11/25/21 00:26	1
2,4,6-Tribromophenol (Surr)	79		13 - 121	11/23/21 19:25	11/25/21 00:26	1
Phenol-d5 (Surr)	80		27 - 104	11/23/21 19:25	11/25/21 00:26	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	40	U	190	40	ug/Kg	☼	11/19/21 10:00	11/20/21 19:04	200
alpha-BHC (2C)	4.4 J p		9.7	2.0	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10
alpha-Chlordane (1C)	40	U	190	40	ug/Kg	☼	11/19/21 10:00	11/20/21 19:04	200
beta-BHC (2C)	5.1	U	12	5.1	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10
delta-BHC (2C)	5.3	U	12	5.3	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10
Dieldrin (1C)	3.9	U	20	3.9	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10
Endosulfan I (1C)	5.8 J p		9.7	2.6	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10
Endosulfan II (1C)	13	U	27	13	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10
Endosulfan sulfate (2C)	3.9	U	20	3.9	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10
Endrin (1C)	7.9	U	20	7.9	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10
Endrin aldehyde (1C)	3.9	U	20	3.9	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10
Endrin ketone (1C)	7.0	U	23	7.0	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10

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Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Client Sample ID: G1-15P (7.0-7.5)

Lab Sample ID: 410-63750-1

Date Collected: 11/17/21 09:55

Matrix: Solid

Date Received: 11/17/21 17:15

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane) (1C)	7.0	J p	9.7	2.5	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10
gamma-Chlordane (1C)	2.9	U	9.7	2.9	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10
Heptachlor (1C)	3.6	U	9.7	3.6	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10
Heptachlor epoxide (1C)	40	U	190	40	ug/Kg	☼	11/19/21 10:00	11/20/21 19:04	200
Methoxychlor (1C)	21	U	78	21	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10
Toxaphene (1C)	160	U	390	160	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10
p,p'-DDD (1C)	3.9	U	20	3.9	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10
p,p'-DDE (2C)	5.5	J	20	3.9	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10
p,p'-DDT (1C)	9.2	U	20	9.2	ug/Kg	☼	11/19/21 10:00	11/20/21 18:44	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	95		54 - 143	11/19/21 10:00	11/20/21 18:44	10
DCB Decachlorobiphenyl (Surr) (1C)	102		54 - 143	11/19/21 10:00	11/20/21 19:04	200
DCB Decachlorobiphenyl (Surr) (2C)	101		54 - 143	11/19/21 10:00	11/20/21 18:44	10
DCB Decachlorobiphenyl (Surr) (2C)	94		54 - 143	11/19/21 10:00	11/20/21 19:04	200
Tetrachloro-m-xylene (Surr) (1C)	85	p	20 - 131	11/19/21 10:00	11/20/21 18:44	10
Tetrachloro-m-xylene (Surr) (1C)	101	p	20 - 131	11/19/21 10:00	11/20/21 19:04	200
Tetrachloro-m-xylene (Surr) (2C)	241	S1+	20 - 131	11/19/21 10:00	11/20/21 18:44	10
Tetrachloro-m-xylene (Surr) (2C)	241	S1+	20 - 131	11/19/21 10:00	11/20/21 19:04	200

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	6.2	U	20	6.2	ug/Kg	☼	11/19/21 10:00	11/22/21 00:28	1
PCB-1221 (2C)	6.2	U	20	6.2	ug/Kg	☼	11/19/21 10:00	11/22/21 00:28	1
PCB-1232 (2C)	6.2	U	20	6.2	ug/Kg	☼	11/19/21 10:00	11/22/21 00:28	1
PCB-1242 (2C)	6.2	U	20	6.2	ug/Kg	☼	11/19/21 10:00	11/22/21 00:28	1
PCB-1248 (2C)	6.2	U	20	6.2	ug/Kg	☼	11/19/21 10:00	11/22/21 00:28	1
PCB-1254 (2C)	7.5	U	20	7.5	ug/Kg	☼	11/19/21 10:00	11/22/21 00:28	1
PCB-1260 (2C)	7.5	U	20	7.5	ug/Kg	☼	11/19/21 10:00	11/22/21 00:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	67		45 - 143	11/19/21 10:00	11/22/21 00:28	1
DCB Decachlorobiphenyl (Surr) (2C)	71		45 - 143	11/19/21 10:00	11/22/21 00:28	1
Tetrachloro-m-xylene (1C)	59		53 - 140	11/19/21 10:00	11/22/21 00:28	1
Tetrachloro-m-xylene (2C)	54		53 - 140	11/19/21 10:00	11/22/21 00:28	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.7	U	4.9	1.7	mg/Kg	☼	11/18/21 22:01	11/23/21 17:46	1
Aluminum	8900		20	10	mg/Kg	☼	11/18/21 22:01	11/23/21 17:46	1
Arsenic	4.1		2.9	1.4	mg/Kg	☼	11/18/21 22:01	11/23/21 17:46	1
Barium	75		0.49	0.15	mg/Kg	☼	11/18/21 22:01	11/24/21 19:02	1
Beryllium	0.55		0.49	0.098	mg/Kg	☼	11/18/21 22:01	11/23/21 17:46	1
Cadmium	0.20	J	0.49	0.098	mg/Kg	☼	11/18/21 22:01	11/23/21 17:46	1
Calcium	14000		49	12	mg/Kg	☼	11/18/21 22:01	11/23/21 17:46	1
Chromium	15		1.5	0.18	mg/Kg	☼	11/18/21 22:01	11/23/21 17:46	1
Cobalt	6.6		0.49	0.14	mg/Kg	☼	11/18/21 22:01	11/23/21 17:46	1
Copper	23		2.0	0.75	mg/Kg	☼	11/18/21 22:01	11/24/21 19:02	1
Iron	15000		20	6.1	mg/Kg	☼	11/18/21 22:01	11/29/21 13:15	1
Lead	49		1.5	0.59	mg/Kg	☼	11/18/21 22:01	11/23/21 17:46	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Client Sample ID: G1-15P (7.0-7.5)

Lab Sample ID: 410-63750-1

Date Collected: 11/17/21 09:55

Matrix: Solid

Date Received: 11/17/21 17:15

Percent Solids: 85.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	1700	^5-	9.8	3.9	mg/Kg	☼	11/18/21 22:01	11/29/21 13:15	1
Manganese	260		0.98	0.51	mg/Kg	☼	11/18/21 22:01	11/23/21 17:46	1
Nickel	12	B	0.98	0.25	mg/Kg	☼	11/18/21 22:01	11/23/21 17:46	1
Potassium	1500		49	20	mg/Kg	☼	11/18/21 22:01	11/30/21 11:25	1
Selenium	1.5	U	4.9	1.5	mg/Kg	☼	11/18/21 22:01	11/23/21 17:46	1
Silver	0.39	U ^5-	0.98	0.39	mg/Kg	☼	11/18/21 22:01	11/23/21 17:46	1
Sodium	130		98	45	mg/Kg	☼	11/18/21 22:01	11/23/21 17:46	1
Thallium	1.3	U	2.9	1.3	mg/Kg	☼	11/18/21 22:01	11/29/21 13:15	1
Zinc	62		2.0	0.98	mg/Kg	☼	11/18/21 22:01	11/23/21 17:46	1
Vanadium	21		0.98	0.42	mg/Kg	☼	11/18/21 22:01	11/23/21 17:46	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14		0.068	0.028	mg/Kg	☼	11/18/21 22:09	11/19/21 22:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	14.8		1.0	1.0	%			11/18/21 08:37	1

Client Sample ID: G1-14 (6.5-7.0)

Lab Sample ID: 410-63750-2

Date Collected: 11/17/21 13:00

Matrix: Solid

Date Received: 11/17/21 17:15

Percent Solids: 77.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.46	U	5.8	0.46	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
trans-1,3-Dichloropropene	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Ethylbenzene	0.46	U	5.8	0.46	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Styrene	0.46	U	5.8	0.46	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
1,4-Dichlorobenzene	0.46	U	5.8	0.46	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
1,2-Dibromoethane	0.46	U	5.8	0.46	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
1,2-Dichloroethane	0.69	U	5.8	0.69	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
4-Methyl-2-pentanone	1.2	U	12	1.2	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Methylcyclohexane	0.69	U	5.8	0.69	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Toluene	0.69	U	5.8	0.69	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Chlorobenzene	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Cyclohexane	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
1,2,4-Trichlorobenzene	5.8	U	12	5.8	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
1,4-Dioxane	43	U	290	43	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Dibromochloromethane	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Tetrachloroethene	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
cis-1,2-Dichloroethene	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
trans-1,2-Dichloroethene	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Methyl tertiary butyl ether	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
m&p-Xylene	1.2	U	5.8	1.2	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
1,3-Dichlorobenzene	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Carbon tetrachloride	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
2-Hexanone	1.2	U	12	1.2	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Acetone	9.0	J	23	6.9	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Chloroform	0.69	U	5.8	0.69	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Client Sample ID: G1-14 (6.5-7.0)

Lab Sample ID: 410-63750-2

Date Collected: 11/17/21 13:00

Matrix: Solid

Date Received: 11/17/21 17:15

Percent Solids: 77.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
1,1,1-Trichloroethane	0.69	U	5.8	0.69	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Bromomethane	0.81	U	5.8	0.81	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Chloromethane	0.69	U	5.8	0.69	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Bromochloromethane	0.69	U	5.8	0.69	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Chloroethane	1.2	U	5.8	1.2	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Vinyl chloride	0.69	U	5.8	0.69	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Methylene Chloride	2.3	U	5.8	2.3	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Carbon disulfide	0.69	U	5.8	0.69	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Bromoform	5.8	U	12	5.8	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Bromodichloromethane	0.46	U	5.8	0.46	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
1,1-Dichloroethane	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
1,1-Dichloroethene	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Trichlorofluoromethane	0.81	U	5.8	0.81	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Dichlorodifluoromethane	0.69	U	5.8	0.69	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Freon 113	0.69	U	12	0.69	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
1,2-Dichloropropane	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
2-Butanone	2.3	U	12	2.3	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
1,1,2-Trichloroethane	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Trichloroethene	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Methyl acetate	1.2	U	5.8	1.2	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
1,1,2,2-Tetrachloroethane	0.46	U	5.8	0.46	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
1,2,3-Trichlorobenzene	5.8	U	12	5.8	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
o-Xylene	0.46	U	5.8	0.46	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
1,2-Dichlorobenzene	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
1,2-Dibromo-3-Chloropropane	0.58	U	5.8	0.58	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1
Isopropylbenzene	0.46	U	5.8	0.46	ug/Kg	☼	11/18/21 18:35	11/24/21 15:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		54 - 135	11/18/21 18:35	11/24/21 15:08	1
4-Bromofluorobenzene (Surr)	96		50 - 131	11/18/21 18:35	11/24/21 15:08	1
Dibromofluoromethane (Surr)	105		50 - 141	11/18/21 18:35	11/24/21 15:08	1
Toluene-d8 (Surr)	100		52 - 141	11/18/21 18:35	11/24/21 15:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	250		47	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
1,2,4,5-Tetrachlorobenzene	21	U	47	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
2,2'-oxybis[1-chloropropane]	26	U	55	26	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
2,3,4,6-Tetrachlorophenol	85	U	210	85	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
2,4,5-Trichlorophenol	21	U	47	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
2,4,6-Trichlorophenol	21	U	47	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
2,4-Dichlorophenol	26	U	55	26	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
2,4-Dimethylphenol	21	U	47	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
2,4-Dinitrophenol	210	U	1300	210	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
2,4-Dinitrotoluene	43	U	210	43	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
2,6-Dinitrotoluene	21	U	47	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
2-Chloronaphthalene	17	U	43	17	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
2-Chlorophenol	21	U	47	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
2-Methylnaphthalene	1300		21	6.4	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Client Sample ID: G1-14 (6.5-7.0)

Lab Sample ID: 410-63750-2

Date Collected: 11/17/21 13:00

Matrix: Solid

Date Received: 11/17/21 17:15

Percent Solids: 77.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	30	J	64	26	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
2-Nitroaniline	21	U	64	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
2-Nitrophenol	26	U	64	26	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
3,3'-Dichlorobenzidine	43	U	210	43	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
3-Nitroaniline	43	U	210	43	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
4,6-Dinitro-2-methylphenol	210	U	640	210	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
4-Bromophenyl-phenylether	21	U	47	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
4-Chloro-3-methylphenol	26	U	64	26	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
4-Methylphenol	95		64	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
4-Nitroaniline	43	U	210	43	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
4-Nitrophenol	210	U	640	210	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Acenaphthene	100		21	4.3	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Acenaphthylene	110		21	5.1	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Acetophenone	21	U	64	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Anthracene	330		21	4.3	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Atrazine	85	U	210	85	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Benzaldehyde	120	J	210	43	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Benzo[a]anthracene	870		21	4.3	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Benzo[a]pyrene	1200		21	4.3	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Benzo[b]fluoranthene	1300		21	4.3	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Benzo[g,h,i]perylene	840		21	4.3	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Benzo[k]fluoranthene	410		21	4.3	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Bis(2-chloroethoxy)methane	21	U	47	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Bis(2-chloroethyl)ether	21	U	47	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Bis(2-ethylhexyl) phthalate	85	U	210	85	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Butylbenzylphthalate	85	U	210	85	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Caprolactam	43	U	210	43	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Carbazole	230		47	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Chrysene	1300		21	4.3	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Di-n-butyl phthalate	85	U	210	85	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Di-n-octyl phthalate	85	U	210	85	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Dibenz(a,h)anthracene	280		21	8.5	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Dibenzofuran	300		47	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Diethyl phthalate	85	U	210	85	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Dimethyl phthalate	85	U	210	85	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Fluoranthene	1500		21	4.3	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Fluorene	440		21	4.3	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Hexachlorobenzene	8.5	U	21	8.5	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Hexachlorobutadiene	26	U	64	26	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Hexachlorocyclopentadiene	210	U	640	210	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Hexachloroethane	43	U	210	43	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Indeno[1,2,3-cd]pyrene	760		21	5.1	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Isophorone	21	U	85	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
N-Nitrosodi-n-propylamine	43	U	85	43	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
N-Nitrosodiphenylamine	21	U	47	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Naphthalene	1000		21	8.5	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Nitrobenzene	21	U	47	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Phenanthrene	2100		21	5.1	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Phenol	21	U	47	21	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Client Sample ID: G1-14 (6.5-7.0)

Lab Sample ID: 410-63750-2

Date Collected: 11/17/21 13:00

Matrix: Solid

Date Received: 11/17/21 17:15

Percent Solids: 77.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	1200		21	4.3	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Pentachlorophenol	85	U	210	85	ug/Kg	☼	11/23/21 19:25	11/25/21 00:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	89		45 - 108				11/23/21 19:25	11/25/21 00:51	1
Nitrobenzene-d5 (Surr)	70		32 - 97				11/23/21 19:25	11/25/21 00:51	1
2-Fluorophenol (Surr)	71		26 - 96				11/23/21 19:25	11/25/21 00:51	1
2-Fluorobiphenyl (Surr)	77		39 - 100				11/23/21 19:25	11/25/21 00:51	1
2,4,6-Tribromophenol (Surr)	63		13 - 121				11/23/21 19:25	11/25/21 00:51	1
Phenol-d5 (Surr)	72		27 - 104				11/23/21 19:25	11/25/21 00:51	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	110	U	530	110	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
alpha-BHC (1C)	110	U	530	110	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
alpha-Chlordane (1C)	110	U	530	110	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
beta-BHC (1C)	280	U	640	280	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
delta-BHC (1C)	290	U	640	290	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
Dieldrin (1C)	210	U	1100	210	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
Endosulfan I (1C)	140	U	530	140	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
Endosulfan II (1C)	700	U	1500	700	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
Endosulfan sulfate (1C)	210	U	1100	210	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
Endrin (1C)	440	U	1100	440	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
Endrin aldehyde (1C)	210	U	1100	210	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
Endrin ketone (1C)	380	U	1300	380	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
gamma-BHC (Lindane) (1C)	130	U	530	130	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
gamma-Chlordane (1C)	160	U	530	160	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
Heptachlor (1C)	200	U	530	200	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
Heptachlor epoxide (1C)	110	U	530	110	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
Methoxychlor (1C)	1200	U	4300	1200	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
Toxaphene (1C)	9000	U	21000	9000	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
p,p'-DDD (1C)	210	U	1100	210	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
p,p'-DDE (1C)	210	U	1100	210	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
p,p'-DDT (1C)	510	U	1100	510	ug/Kg	☼	11/19/21 10:00	11/20/21 19:24	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	128		54 - 143				11/19/21 10:00	11/20/21 19:24	500
DCB Decachlorobiphenyl (Surr) (2C)	122		54 - 143				11/19/21 10:00	11/20/21 19:24	500
Tetrachloro-m-xylene (Surr) (1C)	112		20 - 131				11/19/21 10:00	11/20/21 19:24	500
Tetrachloro-m-xylene (Surr) (2C)	120		20 - 131				11/19/21 10:00	11/20/21 19:24	500

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	6.8	U	22	6.8	ug/Kg	☼	11/19/21 10:00	11/22/21 00:38	1
PCB-1221 (2C)	6.8	U	22	6.8	ug/Kg	☼	11/19/21 10:00	11/22/21 00:38	1
PCB-1232 (2C)	6.8	U	22	6.8	ug/Kg	☼	11/19/21 10:00	11/22/21 00:38	1
PCB-1242 (2C)	6.8	U	22	6.8	ug/Kg	☼	11/19/21 10:00	11/22/21 00:38	1
PCB-1248 (2C)	6.8	U	22	6.8	ug/Kg	☼	11/19/21 10:00	11/22/21 00:38	1
PCB-1254 (2C)	8.2	U	22	8.2	ug/Kg	☼	11/19/21 10:00	11/22/21 00:38	1
PCB-1260 (2C)	8.2	U	22	8.2	ug/Kg	☼	11/19/21 10:00	11/22/21 00:38	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Client Sample ID: G1-14 (6.5-7.0)

Lab Sample ID: 410-63750-2

Date Collected: 11/17/21 13:00

Matrix: Solid

Date Received: 11/17/21 17:15

Percent Solids: 77.4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	98		45 - 143	11/19/21 10:00	11/22/21 00:38	1
DCB Decachlorobiphenyl (Surr) (2C)	91		45 - 143	11/19/21 10:00	11/22/21 00:38	1
Tetrachloro-m-xylene (1C)	89		53 - 140	11/19/21 10:00	11/22/21 00:38	1
Tetrachloro-m-xylene (2C)	76		53 - 140	11/19/21 10:00	11/22/21 00:38	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.6	U	4.7	1.6	mg/Kg	☼	11/18/21 22:01	11/23/21 17:44	1
Aluminum	15000		19	10	mg/Kg	☼	11/18/21 22:01	11/23/21 17:44	1
Arsenic	5.7		2.8	1.3	mg/Kg	☼	11/18/21 22:01	11/23/21 17:44	1
Barium	110		0.47	0.14	mg/Kg	☼	11/18/21 22:01	11/24/21 18:58	1
Beryllium	0.90		0.47	0.094	mg/Kg	☼	11/18/21 22:01	11/23/21 17:44	1
Cadmium	0.39	J	0.47	0.094	mg/Kg	☼	11/18/21 22:01	11/23/21 17:44	1
Calcium	2500		47	11	mg/Kg	☼	11/18/21 22:01	11/23/21 17:44	1
Chromium	19		1.4	0.17	mg/Kg	☼	11/18/21 22:01	11/23/21 17:44	1
Cobalt	10		0.47	0.14	mg/Kg	☼	11/18/21 22:01	11/23/21 17:44	1
Copper	26		1.9	0.73	mg/Kg	☼	11/18/21 22:01	11/24/21 18:58	1
Iron	21000		19	5.8	mg/Kg	☼	11/18/21 22:01	11/29/21 13:08	1
Lead	40		1.4	0.57	mg/Kg	☼	11/18/21 22:01	11/23/21 17:44	1
Magnesium	2000	^5-	9.4	3.8	mg/Kg	☼	11/18/21 22:01	11/29/21 13:08	1
Manganese	370		0.94	0.49	mg/Kg	☼	11/18/21 22:01	11/23/21 17:44	1
Nickel	19	B	0.94	0.25	mg/Kg	☼	11/18/21 22:01	11/23/21 17:44	1
Potassium	1900		47	19	mg/Kg	☼	11/18/21 22:01	11/30/21 11:21	1
Selenium	1.4	U	4.7	1.4	mg/Kg	☼	11/18/21 22:01	11/23/21 17:44	1
Silver	0.38	U ^5-	0.94	0.38	mg/Kg	☼	11/18/21 22:01	11/23/21 17:44	1
Sodium	78	J	94	44	mg/Kg	☼	11/18/21 22:01	11/23/21 17:44	1
Thallium	1.2	U	2.8	1.2	mg/Kg	☼	11/18/21 22:01	11/29/21 13:08	1
Zinc	81		1.9	0.94	mg/Kg	☼	11/18/21 22:01	11/23/21 17:44	1
Vanadium	34		0.94	0.41	mg/Kg	☼	11/18/21 22:01	11/23/21 17:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.21		0.077	0.032	mg/Kg	☼	11/18/21 22:09	11/19/21 22:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22.5		1.0	1.0	%			11/18/21 08:37	1

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (54-135)	BFB (50-131)	DBFM (50-141)	TOL (52-141)
410-63750-1	G1-15P (7.0-7.5)	104	95	104	99
410-63750-2	G1-14 (6.5-7.0)	111	96	105	100
LCS 410-197458/5	Lab Control Sample	107	100	104	96
LCS 410-198452/5	Lab Control Sample	103	100	102	99
LCS 410-197458/6	Lab Control Sample Dup	101	101	103	97
LCS 410-198452/6	Lab Control Sample Dup	103	99	102	100
MB 410-197458/8	Method Blank	102	99	102	97
MB 410-198452/8	Method Blank	103	99	101	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (45-108)	NBZ (32-97)	2FP (26-96)	FBP (39-100)	TBP (13-121)	PHL (27-104)
410-63750-1	G1-15P (7.0-7.5)	94	77	80	85	79	80
410-63750-2	G1-14 (6.5-7.0)	89	70	71	77	63	72

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (54-143)	DCB2 (54-143)	TCX1 (20-131)	TCX2 (20-131)
410-63750-1	G1-15P (7.0-7.5)	95	101	85 p	241 S1+
410-63750-1	G1-15P (7.0-7.5)	102	94	101 p	241 S1+
410-63750-2	G1-14 (6.5-7.0)	128	122	112	120
LCS 410-196699/2-A	Lab Control Sample	85	85	65	65
MB 410-196699/1-A	Method Blank	82	86	70	71

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1	DCB2	TCX1	TCX2
		(45-143)	(45-143)	(53-140)	(53-140)
410-63750-1	G1-15P (7.0-7.5)	67	71	59	54
410-63750-2	G1-14 (6.5-7.0)	98	91	89	76
LCS 410-196700/2-A	Lab Control Sample	121	107	98	86
MB 410-196700/1-A	Method Blank	122	105	101	89

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

DRAFT

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

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

Lab Sample ID: MB 410-197458/8

Matrix: Solid

Analysis Batch: 197458

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	0.40	U	5.0	0.40	ug/Kg			11/22/21 13:41	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
Ethylbenzene	0.40	U	5.0	0.40	ug/Kg			11/22/21 13:41	1
Styrene	0.40	U	5.0	0.40	ug/Kg			11/22/21 13:41	1
1,4-Dichlorobenzene	0.40	U	5.0	0.40	ug/Kg			11/22/21 13:41	1
1,2-Dibromoethane	0.40	U	5.0	0.40	ug/Kg			11/22/21 13:41	1
1,2-Dichloroethane	0.60	U	5.0	0.60	ug/Kg			11/22/21 13:41	1
4-Methyl-2-pentanone	1.0	U	10	1.0	ug/Kg			11/22/21 13:41	1
Methylcyclohexane	0.60	U	5.0	0.60	ug/Kg			11/22/21 13:41	1
Toluene	0.60	U	5.0	0.60	ug/Kg			11/22/21 13:41	1
Chlorobenzene	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
Cyclohexane	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
1,2,4-Trichlorobenzene	5.0	U	10	5.0	ug/Kg			11/22/21 13:41	1
1,4-Dioxane	37	U	250	37	ug/Kg			11/22/21 13:41	1
Dibromochloromethane	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
Tetrachloroethene	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
cis-1,2-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
trans-1,2-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
Methyl tertiary butyl ether	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
m&p-Xylene	1.0	U	5.0	1.0	ug/Kg			11/22/21 13:41	1
1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
Carbon tetrachloride	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
2-Hexanone	1.0	U	10	1.0	ug/Kg			11/22/21 13:41	1
Acetone	6.0	U	20	6.0	ug/Kg			11/22/21 13:41	1
Chloroform	0.60	U	5.0	0.60	ug/Kg			11/22/21 13:41	1
Benzene	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
1,1,1-Trichloroethane	0.60	U	5.0	0.60	ug/Kg			11/22/21 13:41	1
Bromomethane	0.70	U	5.0	0.70	ug/Kg			11/22/21 13:41	1
Chloromethane	0.60	U	5.0	0.60	ug/Kg			11/22/21 13:41	1
Bromochloromethane	0.60	U	5.0	0.60	ug/Kg			11/22/21 13:41	1
Chloroethane	1.0	U	5.0	1.0	ug/Kg			11/22/21 13:41	1
Vinyl chloride	0.60	U	5.0	0.60	ug/Kg			11/22/21 13:41	1
Methylene Chloride	2.0	U	5.0	2.0	ug/Kg			11/22/21 13:41	1
Carbon disulfide	0.60	U	5.0	0.60	ug/Kg			11/22/21 13:41	1
Bromoform	5.0	U	10	5.0	ug/Kg			11/22/21 13:41	1
Bromodichloromethane	0.40	U	5.0	0.40	ug/Kg			11/22/21 13:41	1
1,1-Dichloroethane	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
1,1-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
Trichlorofluoromethane	0.70	U	5.0	0.70	ug/Kg			11/22/21 13:41	1
Dichlorodifluoromethane	0.60	U	5.0	0.60	ug/Kg			11/22/21 13:41	1
Freon 113	0.60	U	10	0.60	ug/Kg			11/22/21 13:41	1
1,2-Dichloropropane	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
2-Butanone	2.0	U	10	2.0	ug/Kg			11/22/21 13:41	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
Trichloroethene	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
Methyl acetate	1.0	U	5.0	1.0	ug/Kg			11/22/21 13:41	1
1,1,1,2-Tetrachloroethane	0.40	U	5.0	0.40	ug/Kg			11/22/21 13:41	1
1,2,3-Trichlorobenzene	5.0	U	10	5.0	ug/Kg			11/22/21 13:41	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

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

Lab Sample ID: MB 410-197458/8

Matrix: Solid

Analysis Batch: 197458

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	0.40	U	5.0	0.40	ug/Kg			11/22/21 13:41	1
1,2-Dichlorobenzene	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
1,2-Dibromo-3-Chloropropane	0.50	U	5.0	0.50	ug/Kg			11/22/21 13:41	1
Isopropylbenzene	0.40	U	5.0	0.40	ug/Kg			11/22/21 13:41	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	102		54 - 135		11/22/21 13:41	1
4-Bromofluorobenzene (Surr)	99		50 - 131		11/22/21 13:41	1
Dibromofluoromethane (Surr)	102		50 - 141		11/22/21 13:41	1
Toluene-d8 (Surr)	97		52 - 141		11/22/21 13:41	1

Lab Sample ID: LCS 410-197458/5

Matrix: Solid

Analysis Batch: 197458

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,3-Dichloropropene	20.0	21.3		ug/Kg		107	66 - 120
trans-1,3-Dichloropropene	20.0	20.6		ug/Kg		103	68 - 122
Ethylbenzene	20.0	20.2		ug/Kg		101	78 - 120
Styrene	20.0	20.0		ug/Kg		100	76 - 120
1,4-Dichlorobenzene	20.0	19.8		ug/Kg		99	80 - 120
1,2-Dibromoethane	20.0	19.8		ug/Kg		99	76 - 120
1,2-Dichloroethane	20.0	20.6		ug/Kg		103	71 - 128
4-Methyl-2-pentanone	250	271		ug/Kg		108	67 - 128
Methylcyclohexane	20.0	22.2		ug/Kg		111	61 - 124
Toluene	20.0	19.7		ug/Kg		98	80 - 120
Chlorobenzene	20.0	20.0		ug/Kg		100	80 - 120
Cyclohexane	20.0	22.4		ug/Kg		112	58 - 126
1,2,4-Trichlorobenzene	20.0	20.9		ug/Kg		104	56 - 130
1,4-Dioxane	500	477		ug/Kg		95	62 - 131
Dibromochloromethane	20.0	20.3		ug/Kg		102	69 - 125
Tetrachloroethene	20.0	20.5		ug/Kg		102	73 - 120
cis-1,2-Dichloroethene	20.0	21.9		ug/Kg		109	80 - 125
trans-1,2-Dichloroethene	20.0	20.5		ug/Kg		102	80 - 126
Methyl tertiary butyl ether	20.0	22.3		ug/Kg		112	72 - 120
m&p-Xylene	40.0	40.3		ug/Kg		101	80 - 120
1,3-Dichlorobenzene	20.0	19.8		ug/Kg		99	75 - 120
Carbon tetrachloride	20.0	21.7		ug/Kg		108	64 - 134
2-Hexanone	250	290		ug/Kg		116	54 - 140
Acetone	250	317		ug/Kg		127	41 - 150
Chloroform	20.0	20.9		ug/Kg		105	80 - 120
Benzene	20.0	21.5		ug/Kg		108	80 - 120
1,1,1-Trichloroethane	20.0	20.9		ug/Kg		104	69 - 123
Bromomethane	20.0	19.7		ug/Kg		98	45 - 140
Chloromethane	20.0	20.4		ug/Kg		102	56 - 120
Bromochloromethane	20.0	21.5		ug/Kg		107	72 - 124
Chloroethane	20.0	19.8		ug/Kg		99	43 - 135
Vinyl chloride	20.0	20.4		ug/Kg		102	52 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

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

Lab Sample ID: LCS 410-197458/5

Matrix: Solid

Analysis Batch: 197458

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	21.2		ug/Kg		106	76 - 122
Carbon disulfide	20.0	23.1		ug/Kg		116	64 - 133
Bromoform	20.0	21.1		ug/Kg		106	51 - 127
Bromodichloromethane	20.0	21.8		ug/Kg		109	70 - 120
1,1-Dichloroethane	20.0	20.9		ug/Kg		104	79 - 120
1,1-Dichloroethene	20.0	21.3		ug/Kg		106	73 - 129
Trichlorofluoromethane	20.0	20.5		ug/Kg		103	55 - 134
Dichlorodifluoromethane	20.0	23.4		ug/Kg		117	21 - 127
Freon 113	20.0	24.6		ug/Kg		123	64 - 135
1,2-Dichloropropane	20.0	21.6		ug/Kg		108	80 - 120
2-Butanone	250	265		ug/Kg		106	57 - 128
1,1,2-Trichloroethane	20.0	20.8		ug/Kg		104	80 - 120
Trichloroethene	20.0	21.4		ug/Kg		107	80 - 120
Methyl acetate	20.0	22.2		ug/Kg		111	67 - 128
1,1,1,2-Tetrachloroethane	20.0	20.0		ug/Kg		100	69 - 125
1,2,3-Trichlorobenzene	20.0	21.1		ug/Kg		105	57 - 131
o-Xylene	20.0	20.0		ug/Kg		100	75 - 120
1,2-Dichlorobenzene	20.0	19.7		ug/Kg		98	76 - 120
1,2-Dibromo-3-Chloropropane	20.0	17.7		ug/Kg		89	48 - 134
Isopropylbenzene	20.0	20.6		ug/Kg		103	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		54 - 135
4-Bromofluorobenzene (Surr)	100		50 - 131
Dibromofluoromethane (Surr)	104		50 - 141
Toluene-d8 (Surr)	96		52 - 141

Lab Sample ID: LCSD 410-197458/6

Matrix: Solid

Analysis Batch: 197458

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	20.0	21.4		ug/Kg		107	66 - 120	0	30
trans-1,3-Dichloropropene	20.0	20.7		ug/Kg		103	68 - 122	0	30
Ethylbenzene	20.0	20.3		ug/Kg		102	78 - 120	1	30
Styrene	20.0	20.0		ug/Kg		100	76 - 120	0	30
1,4-Dichlorobenzene	20.0	19.7		ug/Kg		98	80 - 120	1	30
1,2-Dibromoethane	20.0	19.8		ug/Kg		99	76 - 120	0	30
1,2-Dichloroethane	20.0	20.6		ug/Kg		103	71 - 128	0	30
4-Methyl-2-pentanone	250	261		ug/Kg		104	67 - 128	4	30
Methylcyclohexane	20.0	22.2		ug/Kg		111	61 - 124	0	30
Toluene	20.0	20.0		ug/Kg		100	80 - 120	2	30
Chlorobenzene	20.0	20.0		ug/Kg		100	80 - 120	0	30
Cyclohexane	20.0	22.0		ug/Kg		110	58 - 126	2	30
1,2,4-Trichlorobenzene	20.0	20.6		ug/Kg		103	56 - 130	1	30
1,4-Dioxane	500	485		ug/Kg		97	62 - 131	2	30
Dibromochloromethane	20.0	20.3		ug/Kg		101	69 - 125	0	30
Tetrachloroethene	20.0	20.2		ug/Kg		101	73 - 120	2	30

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

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

Lab Sample ID: LCSD 410-197458/6

Matrix: Solid

Analysis Batch: 197458

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Added	Result	Qualifier				Limits		Limit
cis-1,2-Dichloroethene	20.0	22.0		ug/Kg		110	80 - 125	0	30
trans-1,2-Dichloroethene	20.0	20.4		ug/Kg		102	80 - 126	1	30
Methyl tertiary butyl ether	20.0	22.4		ug/Kg		112	72 - 120	0	30
m&p-Xylene	40.0	40.6		ug/Kg		102	80 - 120	1	30
1,3-Dichlorobenzene	20.0	19.8		ug/Kg		99	75 - 120	0	30
Carbon tetrachloride	20.0	21.1		ug/Kg		105	64 - 134	3	30
2-Hexanone	250	276		ug/Kg		111	54 - 140	5	30
Acetone	250	331		ug/Kg		132	41 - 150	4	30
Chloroform	20.0	21.1		ug/Kg		105	80 - 120	1	30
Benzene	20.0	21.5		ug/Kg		107	80 - 120	0	30
1,1,1-Trichloroethane	20.0	20.4		ug/Kg		102	69 - 123	2	30
Bromomethane	20.0	19.4		ug/Kg		97	45 - 140	2	30
Chloromethane	20.0	20.1		ug/Kg		100	56 - 120	2	30
Bromochloromethane	20.0	22.0		ug/Kg		110	72 - 124	3	30
Chloroethane	20.0	19.9		ug/Kg		99	43 - 135	1	30
Vinyl chloride	20.0	20.0		ug/Kg		100	52 - 120	2	30
Methylene Chloride	20.0	21.6		ug/Kg		108	76 - 122	2	30
Carbon disulfide	20.0	23.0		ug/Kg		115	64 - 133	0	30
Bromoform	20.0	20.5		ug/Kg		103	51 - 127	3	30
Bromodichloromethane	20.0	21.8		ug/Kg		109	70 - 120	0	30
1,1-Dichloroethane	20.0	20.8		ug/Kg		104	79 - 120	0	30
1,1-Dichloroethene	20.0	21.2		ug/Kg		106	73 - 129	0	30
Trichlorofluoromethane	20.0	20.5		ug/Kg		102	55 - 134	0	30
Dichlorodifluoromethane	20.0	24.0		ug/Kg		120	21 - 127	2	30
Freon 113	20.0	24.0		ug/Kg		120	64 - 135	2	30
1,2-Dichloropropane	20.0	21.4		ug/Kg		107	80 - 120	1	30
2-Butanone	250	276		ug/Kg		111	57 - 128	4	30
1,1,2-Trichloroethane	20.0	20.7		ug/Kg		104	80 - 120	0	30
Trichloroethene	20.0	20.8		ug/Kg		104	80 - 120	3	30
Methyl acetate	20.0	21.2		ug/Kg		106	67 - 128	5	30
1,1,2,2-Tetrachloroethane	20.0	19.6		ug/Kg		98	69 - 125	2	30
1,2,3-Trichlorobenzene	20.0	20.7		ug/Kg		103	57 - 131	2	30
o-Xylene	20.0	20.3		ug/Kg		101	75 - 120	2	30
1,2-Dichlorobenzene	20.0	20.1		ug/Kg		101	76 - 120	2	30
1,2-Dibromo-3-Chloropropane	20.0	18.0		ug/Kg		90	48 - 134	2	30
Isopropylbenzene	20.0	20.5		ug/Kg		102	77 - 120	0	30

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	101		54 - 135
4-Bromofluorobenzene (Surr)	101		50 - 131
Dibromofluoromethane (Surr)	103		50 - 141
Toluene-d8 (Surr)	97		52 - 141

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

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

Lab Sample ID: MB 410-198452/8

Matrix: Solid

Analysis Batch: 198452

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Ethylbenzene	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1
Styrene	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1
1,4-Dichlorobenzene	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1
1,2-Dibromoethane	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1
1,2-Dichloroethane	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
4-Methyl-2-pentanone	1.0	U	10	1.0	ug/Kg			11/24/21 11:57	1
Methylcyclohexane	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Toluene	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Chlorobenzene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Cyclohexane	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
1,2,4-Trichlorobenzene	5.0	U	10	5.0	ug/Kg			11/24/21 11:57	1
1,4-Dioxane	37	U	250	37	ug/Kg			11/24/21 11:57	1
Dibromochloromethane	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Tetrachloroethene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
cis-1,2-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
trans-1,2-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Methyl tertiary butyl ether	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
m&p-Xylene	1.0	U	5.0	1.0	ug/Kg			11/24/21 11:57	1
1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Carbon tetrachloride	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
2-Hexanone	1.0	U	10	1.0	ug/Kg			11/24/21 11:57	1
Acetone	6.0	U	20	6.0	ug/Kg			11/24/21 11:57	1
Chloroform	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Benzene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
1,1,1-Trichloroethane	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Bromomethane	0.70	U	5.0	0.70	ug/Kg			11/24/21 11:57	1
Chloromethane	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Bromochloromethane	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Chloroethane	1.0	U	5.0	1.0	ug/Kg			11/24/21 11:57	1
Vinyl chloride	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Methylene Chloride	2.0	U	5.0	2.0	ug/Kg			11/24/21 11:57	1
Carbon disulfide	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Bromoform	5.0	U	10	5.0	ug/Kg			11/24/21 11:57	1
Bromodichloromethane	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1
1,1-Dichloroethane	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
1,1-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Trichlorofluoromethane	0.70	U	5.0	0.70	ug/Kg			11/24/21 11:57	1
Dichlorodifluoromethane	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Freon 113	0.60	U	10	0.60	ug/Kg			11/24/21 11:57	1
1,2-Dichloropropane	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
2-Butanone	2.0	U	10	2.0	ug/Kg			11/24/21 11:57	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Trichloroethene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Methyl acetate	1.0	U	5.0	1.0	ug/Kg			11/24/21 11:57	1
1,1,1,2-Tetrachloroethane	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1
1,2,3-Trichlorobenzene	5.0	U	10	5.0	ug/Kg			11/24/21 11:57	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

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

Lab Sample ID: MB 410-198452/8

Matrix: Solid

Analysis Batch: 198452

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1
1,2-Dichlorobenzene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
1,2-Dibromo-3-Chloropropane	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Isopropylbenzene	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	103		54 - 135		11/24/21 11:57	1
4-Bromofluorobenzene (Surr)	99		50 - 131		11/24/21 11:57	1
Dibromofluoromethane (Surr)	101		50 - 141		11/24/21 11:57	1
Toluene-d8 (Surr)	100		52 - 141		11/24/21 11:57	1

Lab Sample ID: LCS 410-198452/5

Matrix: Solid

Analysis Batch: 198452

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,3-Dichloropropene	20.0	20.0		ug/Kg		100	66 - 120
trans-1,3-Dichloropropene	20.0	20.5		ug/Kg		103	68 - 122
Ethylbenzene	20.0	20.5		ug/Kg		102	78 - 120
Styrene	20.0	20.0		ug/Kg		100	76 - 120
1,4-Dichlorobenzene	20.0	20.1		ug/Kg		101	80 - 120
1,2-Dibromoethane	20.0	19.7		ug/Kg		99	76 - 120
1,2-Dichloroethane	20.0	19.8		ug/Kg		99	71 - 128
4-Methyl-2-pentanone	250	263		ug/Kg		105	67 - 128
Methylcyclohexane	20.0	21.6		ug/Kg		108	61 - 124
Toluene	20.0	20.0		ug/Kg		100	80 - 120
Chlorobenzene	20.0	20.2		ug/Kg		101	80 - 120
Cyclohexane	20.0	21.5		ug/Kg		108	58 - 126
1,2,4-Trichlorobenzene	20.0	20.9		ug/Kg		105	56 - 130
1,4-Dioxane	500	505		ug/Kg		101	62 - 131
Dibromochloromethane	20.0	20.5		ug/Kg		103	69 - 125
Tetrachloroethene	20.0	20.7		ug/Kg		104	73 - 120
cis-1,2-Dichloroethene	20.0	21.3		ug/Kg		106	80 - 125
trans-1,2-Dichloroethene	20.0	20.3		ug/Kg		101	80 - 126
Methyl tertiary butyl ether	20.0	21.2		ug/Kg		106	72 - 120
m&p-Xylene	40.0	40.7		ug/Kg		102	80 - 120
1,3-Dichlorobenzene	20.0	20.0		ug/Kg		100	75 - 120
Carbon tetrachloride	20.0	20.5		ug/Kg		102	64 - 134
2-Hexanone	250	282		ug/Kg		113	54 - 140
Acetone	250	329		ug/Kg		132	41 - 150
Chloroform	20.0	20.0		ug/Kg		100	80 - 120
Benzene	20.0	20.8		ug/Kg		104	80 - 120
1,1,1-Trichloroethane	20.0	20.4		ug/Kg		102	69 - 123
Bromomethane	20.0	19.0		ug/Kg		95	45 - 140
Chloromethane	20.0	19.4		ug/Kg		97	56 - 120
Bromochloromethane	20.0	20.9		ug/Kg		104	72 - 124
Chloroethane	20.0	19.1		ug/Kg		95	43 - 135
Vinyl chloride	20.0	19.2		ug/Kg		96	52 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

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

Lab Sample ID: LCS 410-198452/5

Matrix: Solid

Analysis Batch: 198452

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	20.9		ug/Kg		104	76 - 122
Carbon disulfide	20.0	22.8		ug/Kg		114	64 - 133
Bromoform	20.0	20.7		ug/Kg		104	51 - 127
Bromodichloromethane	20.0	20.6		ug/Kg		103	70 - 120
1,1-Dichloroethane	20.0	20.2		ug/Kg		101	79 - 120
1,1-Dichloroethene	20.0	21.4		ug/Kg		107	73 - 129
Trichlorofluoromethane	20.0	19.8		ug/Kg		99	55 - 134
Dichlorodifluoromethane	20.0	20.1		ug/Kg		100	21 - 127
Freon 113	20.0	23.6		ug/Kg		118	64 - 135
1,2-Dichloropropane	20.0	20.5		ug/Kg		103	80 - 120
2-Butanone	250	268		ug/Kg		107	57 - 128
1,1,2-Trichloroethane	20.0	20.8		ug/Kg		104	80 - 120
Trichloroethene	20.0	20.5		ug/Kg		102	80 - 120
Methyl acetate	20.0	20.8		ug/Kg		104	67 - 128
1,1,1,2-Tetrachloroethane	20.0	20.5		ug/Kg		103	69 - 125
1,2,3-Trichlorobenzene	20.0	21.1		ug/Kg		106	57 - 131
o-Xylene	20.0	20.2		ug/Kg		101	75 - 120
1,2-Dichlorobenzene	20.0	19.9		ug/Kg		100	76 - 120
1,2-Dibromo-3-Chloropropane	20.0	18.8		ug/Kg		94	48 - 134
Isopropylbenzene	20.0	20.7		ug/Kg		103	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		54 - 135
4-Bromofluorobenzene (Surr)	100		50 - 131
Dibromofluoromethane (Surr)	102		50 - 141
Toluene-d8 (Surr)	99		52 - 141

Lab Sample ID: LCSD 410-198452/6

Matrix: Solid

Analysis Batch: 198452

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	20.0	20.2		ug/Kg		101	66 - 120	1	30
trans-1,3-Dichloropropene	20.0	20.5		ug/Kg		103	68 - 122	0	30
Ethylbenzene	20.0	20.7		ug/Kg		104	78 - 120	1	30
Styrene	20.0	20.3		ug/Kg		102	76 - 120	2	30
1,4-Dichlorobenzene	20.0	20.7		ug/Kg		103	80 - 120	3	30
1,2-Dibromoethane	20.0	20.0		ug/Kg		100	76 - 120	1	30
1,2-Dichloroethane	20.0	19.5		ug/Kg		98	71 - 128	1	30
4-Methyl-2-pentanone	250	243		ug/Kg		97	67 - 128	8	30
Methylcyclohexane	20.0	21.2		ug/Kg		106	61 - 124	2	30
Toluene	20.0	20.4		ug/Kg		102	80 - 120	2	30
Chlorobenzene	20.0	20.5		ug/Kg		102	80 - 120	1	30
Cyclohexane	20.0	21.4		ug/Kg		107	58 - 126	1	30
1,2,4-Trichlorobenzene	20.0	21.4		ug/Kg		107	56 - 130	2	30
1,4-Dioxane	500	523		ug/Kg		105	62 - 131	4	30
Dibromochloromethane	20.0	20.3		ug/Kg		102	69 - 125	1	30
Tetrachloroethene	20.0	21.0		ug/Kg		105	73 - 120	1	30

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

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

Lab Sample ID: LCSD 410-198452/6

Matrix: Solid

Analysis Batch: 198452

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Added	Result	Qualifier				Limits		Limit
cis-1,2-Dichloroethene	20.0	21.5		ug/Kg		108	80 - 125	1	30
trans-1,2-Dichloroethene	20.0	20.3		ug/Kg		102	80 - 126	0	30
Methyl tertiary butyl ether	20.0	20.7		ug/Kg		103	72 - 120	2	30
m&p-Xylene	40.0	41.7		ug/Kg		104	80 - 120	3	30
1,3-Dichlorobenzene	20.0	20.5		ug/Kg		102	75 - 120	3	30
Carbon tetrachloride	20.0	20.4		ug/Kg		102	64 - 134	0	30
2-Hexanone	250	256		ug/Kg		102	54 - 140	10	30
Acetone	250	350		ug/Kg		140	41 - 150	6	30
Chloroform	20.0	20.2		ug/Kg		101	80 - 120	1	30
Benzene	20.0	21.0		ug/Kg		105	80 - 120	1	30
1,1,1-Trichloroethane	20.0	20.1		ug/Kg		101	69 - 123	1	30
Bromomethane	20.0	18.6		ug/Kg		93	45 - 140	2	30
Chloromethane	20.0	18.6		ug/Kg		93	56 - 120	4	30
Bromochloromethane	20.0	20.7		ug/Kg		103	72 - 124	1	30
Chloroethane	20.0	19.5		ug/Kg		98	43 - 135	2	30
Vinyl chloride	20.0	18.9		ug/Kg		95	52 - 120	1	30
Methylene Chloride	20.0	20.8		ug/Kg		104	76 - 122	0	30
Carbon disulfide	20.0	23.0		ug/Kg		115	64 - 133	1	30
Bromoform	20.0	20.8		ug/Kg		104	51 - 127	0	30
Bromodichloromethane	20.0	20.4		ug/Kg		102	70 - 120	1	30
1,1-Dichloroethane	20.0	20.5		ug/Kg		102	79 - 120	1	30
1,1-Dichloroethene	20.0	20.9		ug/Kg		104	73 - 129	3	30
Trichlorofluoromethane	20.0	19.6		ug/Kg		98	55 - 134	1	30
Dichlorodifluoromethane	20.0	20.7		ug/Kg		103	21 - 127	3	30
Freon 113	20.0	23.4		ug/Kg		117	64 - 135	0	30
1,2-Dichloropropane	20.0	21.1		ug/Kg		106	80 - 120	3	30
2-Butanone	250	285		ug/Kg		114	57 - 128	6	30
1,1,2-Trichloroethane	20.0	20.6		ug/Kg		103	80 - 120	1	30
Trichloroethene	20.0	20.6		ug/Kg		103	80 - 120	1	30
Methyl acetate	20.0	20.3		ug/Kg		101	67 - 128	2	30
1,1,2,2-Tetrachloroethane	20.0	19.9		ug/Kg		99	69 - 125	3	30
1,2,3-Trichlorobenzene	20.0	21.2		ug/Kg		106	57 - 131	1	30
o-Xylene	20.0	20.6		ug/Kg		103	75 - 120	2	30
1,2-Dichlorobenzene	20.0	20.4		ug/Kg		102	76 - 120	3	30
1,2-Dibromo-3-Chloropropane	20.0	17.8		ug/Kg		89	48 - 134	5	30
Isopropylbenzene	20.0	21.2		ug/Kg		106	77 - 120	2	30

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	103		54 - 135
4-Bromofluorobenzene (Surr)	99		50 - 131
Dibromofluoromethane (Surr)	102		50 - 141
Toluene-d8 (Surr)	100		52 - 141

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-196699/1-A

Matrix: Solid

Analysis Batch: 197127

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 196699

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin (1C)	0.17	U	0.83	0.17	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
alpha-BHC (2C)	0.17	U	0.83	0.17	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
alpha-Chlordane (1C)	0.17	U	0.83	0.17	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
beta-BHC (1C)	0.44	U	1.0	0.44	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
delta-BHC (1C)	0.45	U	1.0	0.45	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Dieldrin (1C)	0.33	U	1.7	0.33	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Endosulfan I (1C)	0.22	U	0.83	0.22	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Endosulfan II (1C)	1.1	U	2.3	1.1	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Endosulfan sulfate (1C)	0.33	U	1.7	0.33	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Endrin (2C)	0.68	U	1.7	0.68	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Endrin aldehyde (1C)	0.33	U	1.7	0.33	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Endrin ketone (1C)	0.60	U	2.0	0.60	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
gamma-BHC (Lindane) (1C)	0.21	U	0.83	0.21	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
gamma-Chlordane (1C)	0.25	U	0.83	0.25	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Heptachlor (1C)	0.31	U	0.83	0.31	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Heptachlor epoxide (1C)	0.17	U	0.83	0.17	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Methoxychlor (1C)	1.8	U	6.7	1.8	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
Toxaphene (1C)	14	U	33	14	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
p,p'-DDD (1C)	0.33	U	1.7	0.33	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
p,p'-DDE (1C)	0.33	U	1.7	0.33	ug/Kg		11/19/21 10:00	11/20/21 12:25	1
p,p'-DDT (1C)	0.79	U	1.7	0.79	ug/Kg		11/19/21 10:00	11/20/21 12:25	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	82		54 - 143	11/19/21 10:00	11/20/21 12:25	1
DCB Decachlorobiphenyl (Surr) (2C)	86		54 - 143	11/19/21 10:00	11/20/21 12:25	1
Tetrachloro-m-xylene (Surr) (1C)	70		20 - 131	11/19/21 10:00	11/20/21 12:25	1
Tetrachloro-m-xylene (Surr) (2C)	71		20 - 131	11/19/21 10:00	11/20/21 12:25	1

Lab Sample ID: LCS 410-196699/2-A

Matrix: Solid

Analysis Batch: 197127

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 196699

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Aldrin (1C)	3.38	2.79		ug/Kg		83	56 - 134
alpha-BHC (2C)	3.38	2.77		ug/Kg		82	55 - 135
beta-BHC (2C)	3.33	2.87		ug/Kg		86	50 - 132
delta-BHC (1C)	3.33	2.97		ug/Kg		89	47 - 141
Dieldrin (2C)	6.67	5.94		ug/Kg		89	54 - 136
Endosulfan I (2C)	3.38	2.93		ug/Kg		87	51 - 124
Endosulfan II (2C)	6.71	5.85		ug/Kg		87	56 - 125
Endosulfan sulfate (2C)	6.71	5.63		ug/Kg		84	56 - 125
Endrin (1C)	6.67	6.31		ug/Kg		95	56 - 129
Endrin aldehyde (1C)	6.71	4.92		ug/Kg		73	46 - 133
Endrin ketone (2C)	6.67	5.65		ug/Kg		85	55 - 128
gamma-BHC (Lindane) (2C)	3.33	2.76		ug/Kg		83	52 - 138
Heptachlor (2C)	3.38	2.74		ug/Kg		81	52 - 139
Heptachlor epoxide (2C)	3.33	2.97		ug/Kg		89	55 - 133
Methoxychlor (1C)	33.6	30.6		ug/Kg		91	54 - 148

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

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

Lab Sample ID: LCS 410-196699/2-A

Matrix: Solid

Analysis Batch: 197127

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 196699

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
p,p'-DDD (1C)	6.71	6.50		ug/Kg		97	59 - 135
p,p'-DDE (1C)	6.71	6.14		ug/Kg		92	57 - 135
p,p'-DDT (2C)	6.71	6.48		ug/Kg		97	53 - 151

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	85		54 - 143
DCB Decachlorobiphenyl (Surr) (2C)	85		54 - 143
Tetrachloro-m-xylene (Surr) (1C)	65		20 - 131
Tetrachloro-m-xylene (Surr) (2C)	65		20 - 131

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

Lab Sample ID: MB 410-196700/1-A

Matrix: Solid

Analysis Batch: 197389

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 196700

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	5.3	U	17	5.3	ug/Kg		11/19/21 10:00	11/21/21 21:40	1
PCB-1221 (2C)	5.3	U	17	5.3	ug/Kg		11/19/21 10:00	11/21/21 21:40	1
PCB-1232 (2C)	5.3	U	17	5.3	ug/Kg		11/19/21 10:00	11/21/21 21:40	1
PCB-1242 (2C)	5.3	U	17	5.3	ug/Kg		11/19/21 10:00	11/21/21 21:40	1
PCB-1248 (2C)	5.3	U	17	5.3	ug/Kg		11/19/21 10:00	11/21/21 21:40	1
PCB-1254 (2C)	6.4	U	17	6.4	ug/Kg		11/19/21 10:00	11/21/21 21:40	1
PCB-1260 (2C)	6.4	U	17	6.4	ug/Kg		11/19/21 10:00	11/21/21 21:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	122		45 - 143	11/19/21 10:00	11/21/21 21:40	1
DCB Decachlorobiphenyl (Surr) (2C)	105		45 - 143	11/19/21 10:00	11/21/21 21:40	1
Tetrachloro-m-xylene (1C)	101		53 - 140	11/19/21 10:00	11/21/21 21:40	1
Tetrachloro-m-xylene (2C)	89		53 - 140	11/19/21 10:00	11/21/21 21:40	1

Lab Sample ID: LCS 410-196700/2-A

Matrix: Solid

Analysis Batch: 197389

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 196700

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016 (2C)	167	125		ug/Kg		75	68 - 121
PCB-1260 (2C)	168	157		ug/Kg		93	75 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	121		45 - 143
DCB Decachlorobiphenyl (Surr) (2C)	107		45 - 143
Tetrachloro-m-xylene (1C)	98		53 - 140

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

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

Lab Sample ID: LCS 410-196700/2-A
Matrix: Solid
Analysis Batch: 197389

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196700

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene (2C)	86		53 - 140

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-196644/1-A
Matrix: Solid
Analysis Batch: 198233

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 196644

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	1.7	U	5.0	1.7	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Aluminum	11	U	20	11	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Arsenic	1.4	U	3.0	1.4	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Beryllium	0.10	U	0.50	0.10	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Cadmium	0.10	U	0.50	0.10	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Calcium	12	U	50	12	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Chromium	0.18	U	1.5	0.18	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Cobalt	0.15	U	0.50	0.15	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Copper	0.77	U ^3+	2.0	0.77	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Lead	0.60	U	1.5	0.60	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Magnesium	4.0	U ^3+	10	4.0	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Manganese	0.52	U	1.0	0.52	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Nickel	0.284	J	1.0	0.26	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Selenium	1.5	U	5.0	1.5	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Silver	0.40	U ^5-	1.0	0.40	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Sodium	46	U	100	46	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Zinc	1.0	U	2.0	1.0	mg/Kg		11/18/21 22:01	11/23/21 16:48	1
Vanadium	0.43	U	1.0	0.43	mg/Kg		11/18/21 22:01	11/23/21 16:48	1

Lab Sample ID: MB 410-196644/1-A
Matrix: Solid
Analysis Batch: 198812

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 196644

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	0.15	U	0.50	0.15	mg/Kg		11/18/21 22:01	11/24/21 18:52	1
Copper	0.77	U	2.0	0.77	mg/Kg		11/18/21 22:01	11/24/21 18:52	1

Lab Sample ID: MB 410-196644/1-A
Matrix: Solid
Analysis Batch: 199218

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 196644

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Iron	6.2	U	20	6.2	mg/Kg		11/18/21 22:01	11/29/21 13:02	1
Magnesium	4.0	U ^5-	10	4.0	mg/Kg		11/18/21 22:01	11/29/21 13:02	1
Potassium	20	U ^3+	50	20	mg/Kg		11/18/21 22:01	11/29/21 13:02	1
Thallium	1.3	U	3.0	1.3	mg/Kg		11/18/21 22:01	11/29/21 13:02	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

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

Lab Sample ID: LCS 410-196644/2-A
Matrix: Solid
Analysis Batch: 198233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196644

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Antimony	10.0	9.76		mg/Kg		98	80 - 120	
Aluminum	500	465		mg/Kg		93	80 - 120	
Arsenic	50.0	50.7		mg/Kg		101	80 - 120	
Beryllium	5.00	5.21		mg/Kg		104	80 - 120	
Cadmium	5.00	5.07		mg/Kg		101	80 - 120	
Calcium	500	490		mg/Kg		98	80 - 120	
Chromium	50.0	51.9		mg/Kg		104	80 - 120	
Cobalt	50.0	52.4		mg/Kg		105	80 - 120	
Lead	5.00	5.00		mg/Kg		100	80 - 120	
Manganese	50.0	52.2		mg/Kg		104	80 - 120	
Nickel	50.0	52.5		mg/Kg		105	80 - 120	
Selenium	10.0	10.0		mg/Kg		100	80 - 120	
Silver	5.00	5.24	^5-	mg/Kg		105	80 - 120	
Sodium	500	489		mg/Kg		98	80 - 120	
Zinc	50.0	50.2		mg/Kg		100	80 - 120	
Vanadium	50.0	50.2		mg/Kg		100	80 - 120	

Lab Sample ID: LCS 410-196644/2-A
Matrix: Solid
Analysis Batch: 198812

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196644

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Barium	50.0	50.0		mg/Kg		100	80 - 120	
Copper	50.0	50.5		mg/Kg		101	80 - 120	

Lab Sample ID: LCS 410-196644/2-A
Matrix: Solid
Analysis Batch: 199218

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196644

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Iron	500	507		mg/Kg		101	80 - 120	
Magnesium	500	492	^5-	mg/Kg		98	80 - 120	
Thallium	9.99	9.69		mg/Kg		97	80 - 120	

Lab Sample ID: LCS 410-196644/2-A
Matrix: Solid
Analysis Batch: 199681

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196644

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Potassium	500	540		mg/Kg		108	80 - 120	

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-196646/1-A
Matrix: Solid
Analysis Batch: 197088

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 196644

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.025	U	0.060	0.025	mg/Kg		11/18/21 22:09	11/19/21 21:40	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 410-196646/2-A
Matrix: Solid
Analysis Batch: 197088

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 196646

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.173		mg/Kg		104	80 - 120

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QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

GC/MS VOA

Prep Batch: 196586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	5035	
410-63750-2	G1-14 (6.5-7.0)	Total/NA	Solid	5035	

Analysis Batch: 197458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	8260C	196586
MB 410-197458/8	Method Blank	Total/NA	Solid	8260C	
LCS 410-197458/5	Lab Control Sample	Total/NA	Solid	8260C	
LCS 410-197458/6	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 198452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-2	G1-14 (6.5-7.0)	Total/NA	Solid	8260C	196586
MB 410-198452/8	Method Blank	Total/NA	Solid	8260C	
LCS 410-198452/5	Lab Control Sample	Total/NA	Solid	8260C	
LCS 410-198452/6	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 198232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	3546	
410-63750-2	G1-14 (6.5-7.0)	Total/NA	Solid	3546	

Analysis Batch: 198789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	8270D	198232
410-63750-2	G1-14 (6.5-7.0)	Total/NA	Solid	8270D	198232

GC Semi VOA

Prep Batch: 196699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	3546	
410-63750-2	G1-14 (6.5-7.0)	Total/NA	Solid	3546	
MB 410-196699/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-196699/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 196700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	3546	
410-63750-2	G1-14 (6.5-7.0)	Total/NA	Solid	3546	
MB 410-196700/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-196700/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 197127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	8081B	196699
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	8081B	196699
410-63750-2	G1-14 (6.5-7.0)	Total/NA	Solid	8081B	196699
MB 410-196699/1-A	Method Blank	Total/NA	Solid	8081B	196699
LCS 410-196699/2-A	Lab Control Sample	Total/NA	Solid	8081B	196699

Eurofins Lancaster Laboratories Env, LLC

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

GC Semi VOA

Analysis Batch: 197389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	8082A	196700
410-63750-2	G1-14 (6.5-7.0)	Total/NA	Solid	8082A	196700
MB 410-196700/1-A	Method Blank	Total/NA	Solid	8082A	196700
LCS 410-196700/2-A	Lab Control Sample	Total/NA	Solid	8082A	196700

Metals

Prep Batch: 196644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	3050B	
410-63750-2	G1-14 (6.5-7.0)	Total/NA	Solid	3050B	
MB 410-196644/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-196644/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 196646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	7471B	
410-63750-2	G1-14 (6.5-7.0)	Total/NA	Solid	7471B	
MB 410-196646/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-196646/2-A	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 197088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	7471B	196646
410-63750-2	G1-14 (6.5-7.0)	Total/NA	Solid	7471B	196646
MB 410-196646/1-A	Method Blank	Total/NA	Solid	7471B	196646
LCS 410-196646/2-A	Lab Control Sample	Total/NA	Solid	7471B	196646

Analysis Batch: 198233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	6010D	196644
410-63750-2	G1-14 (6.5-7.0)	Total/NA	Solid	6010D	196644
MB 410-196644/1-A	Method Blank	Total/NA	Solid	6010D	196644
LCS 410-196644/2-A	Lab Control Sample	Total/NA	Solid	6010D	196644

Analysis Batch: 198812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	6010D	196644
410-63750-2	G1-14 (6.5-7.0)	Total/NA	Solid	6010D	196644
MB 410-196644/1-A	Method Blank	Total/NA	Solid	6010D	196644
LCS 410-196644/2-A	Lab Control Sample	Total/NA	Solid	6010D	196644

Analysis Batch: 199218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	6010D	196644
410-63750-2	G1-14 (6.5-7.0)	Total/NA	Solid	6010D	196644
MB 410-196644/1-A	Method Blank	Total/NA	Solid	6010D	196644
LCS 410-196644/2-A	Lab Control Sample	Total/NA	Solid	6010D	196644

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Metals

Analysis Batch: 199681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	6010D	196644
410-63750-2	G1-14 (6.5-7.0)	Total/NA	Solid	6010D	196644
LCS 410-196644/2-A	Lab Control Sample	Total/NA	Solid	6010D	196644

General Chemistry

Analysis Batch: 196281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63750-1	G1-15P (7.0-7.5)	Total/NA	Solid	Moisture	
410-63750-2	G1-14 (6.5-7.0)	Total/NA	Solid	Moisture	

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Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Client Sample ID: G1-15P (7.0-7.5)

Lab Sample ID: 410-63750-1

Date Collected: 11/17/21 09:55

Matrix: Solid

Date Received: 11/17/21 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	196281	11/18/21 08:37	UGCW	ELLE

Client Sample ID: G1-15P (7.0-7.5)

Lab Sample ID: 410-63750-1

Date Collected: 11/17/21 09:55

Matrix: Solid

Date Received: 11/17/21 17:15

Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			196586	11/18/21 18:35	UK3O	ELLE
Total/NA	Analysis	8260C		1	197458	11/22/21 18:23	UCB5	ELLE
Total/NA	Prep	3546			198232	11/23/21 19:25	QQ3P	ELLE
Total/NA	Analysis	8270D		1	198789	11/25/21 00:26	W6XI	ELLE
Total/NA	Prep	3546			196699	11/19/21 10:00	H2LC	ELLE
Total/NA	Analysis	8081B		10	197127	11/20/21 18:44	WN7O	ELLE
Total/NA	Prep	3546			196699	11/19/21 10:00	H2LC	ELLE
Total/NA	Analysis	8081B		200	197127	11/20/21 19:04	WN7O	ELLE
Total/NA	Prep	3546			196700	11/19/21 10:00	H2LC	ELLE
Total/NA	Analysis	8082A		1	197389	11/22/21 00:28	JC94	ELLE
Total/NA	Prep	3050B			196644	11/18/21 22:01	UJLA	ELLE
Total/NA	Analysis	6010D		1	198233	11/23/21 17:46	T8CQ	ELLE
Total/NA	Prep	3050B			196644	11/18/21 22:01	UJLA	ELLE
Total/NA	Analysis	6010D		1	199218	11/29/21 13:15	WJM9	ELLE
Total/NA	Prep	3050B			196644	11/18/21 22:01	UJLA	ELLE
Total/NA	Analysis	6010D		1	199681	11/30/21 11:25	WJM9	ELLE
Total/NA	Prep	3050B			196644	11/18/21 22:01	UJLA	ELLE
Total/NA	Analysis	6010D		1	198812	11/24/21 19:02	T8CQ	ELLE
Total/NA	Prep	7471B			196646	11/18/21 22:09	UAMX	ELLE
Total/NA	Analysis	7471B		1	197088	11/19/21 22:33	UEFS	ELLE

Client Sample ID: G1-14 (6.5-7.0)

Lab Sample ID: 410-63750-2

Date Collected: 11/17/21 13:00

Matrix: Solid

Date Received: 11/17/21 17:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	196281	11/18/21 08:37	UGCW	ELLE

Client Sample ID: G1-14 (6.5-7.0)

Lab Sample ID: 410-63750-2

Date Collected: 11/17/21 13:00

Matrix: Solid

Date Received: 11/17/21 17:15

Percent Solids: 77.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			196586	11/18/21 18:35	UK3O	ELLE
Total/NA	Analysis	8260C		1	198452	11/24/21 15:08	UCB5	ELLE
Total/NA	Prep	3546			198232	11/23/21 19:25	QQ3P	ELLE
Total/NA	Analysis	8270D		1	198789	11/25/21 00:51	W6XI	ELLE

Lab Chronicle

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Client Sample ID: G1-14 (6.5-7.0)

Lab Sample ID: 410-63750-2

Date Collected: 11/17/21 13:00

Matrix: Solid

Date Received: 11/17/21 17:15

Percent Solids: 77.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			196699	11/19/21 10:00	H2LC	ELLE
Total/NA	Analysis	8081B		500	197127	11/20/21 19:24	WN7O	ELLE
Total/NA	Prep	3546			196700	11/19/21 10:00	H2LC	ELLE
Total/NA	Analysis	8082A		1	197389	11/22/21 00:38	JC94	ELLE
Total/NA	Prep	3050B			196644	11/18/21 22:01	UJLA	ELLE
Total/NA	Analysis	6010D		1	198233	11/23/21 17:44	T8CQ	ELLE
Total/NA	Prep	3050B			196644	11/18/21 22:01	UJLA	ELLE
Total/NA	Analysis	6010D		1	199218	11/29/21 13:08	WJM9	ELLE
Total/NA	Prep	3050B			196644	11/18/21 22:01	UJLA	ELLE
Total/NA	Analysis	6010D		1	199681	11/30/21 11:21	WJM9	ELLE
Total/NA	Prep	3050B			196644	11/18/21 22:01	UJLA	ELLE
Total/NA	Analysis	6010D		1	198812	11/24/21 18:58	T8CQ	ELLE
Total/NA	Prep	7471B			196646	11/18/21 22:09	UAMX	ELLE
Total/NA	Analysis	7471B		1	197088	11/19/21 22:35	UEFS	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22

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
8260C	5035	Solid	m&p-Xylene
8260C	5035	Solid	o-Xylene
Moisture		Solid	Percent Moisture

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Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
6010D	Metals (ICP)	SW846	ELLE
7471B	Mercury (CVAA)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
7471B	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63750-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-63750-1	G1-15P (7.0-7.5)	Solid	11/17/21 09:55	11/17/21 17:15
410-63750-2	G1-14 (6.5-7.0)	Solid	11/17/21 13:00	11/17/21 17:15

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410-63750 Chain of Custody

Chain of Custody Record

eurofins Environment Testing America

Regulatory Program: DW NPDES RCRA Other: VADEP

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact		Project Manager: <u>Ashley Sweeney</u>		Site Contact:		Date: <u>11/17/21</u>		COC No: <u>1</u> of <u>1</u> COCs	
Your Company Name here: <u>ROUX ASSOCIATES</u>		Email: <u>ASweeney@maxinc.com</u>		Lab Contact:		Carrier:		TALS Project #:	
Address: <u>407 HERON DRIVE</u>		Tel/Fax:		Analysis Turnaround Time		TAT if different from Below		Sampler:	
City/State/Zip: <u>IRVING TOW. NJ 07035</u>		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		2 weeks		<input checked="" type="checkbox"/> 1 week		For Lab Use Only:	
(xxx) xxx-xxxx Phone: <u>908-423-2200</u>		<input type="checkbox"/> 2 days		1 day		<input type="checkbox"/>		Walk-in Client:	
(xxx) xxx-xxxx FAX:		<input type="checkbox"/>		1 day		<input type="checkbox"/>		Lab Sampling:	
Project Name: <u>MUSE - ALEXANDRIA</u>		Site: <u>ALEXANDRIA, VA</u>		P O #:		Job / SDG No.:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	TCL VOCs	TCL SVOCs	PCB/PCP	TAL METALS	PCB	MERURY	Sample Specific Notes
<u>B1-15P (7.0-7.5)</u>	<u>11/17/21</u>	<u>9:55</u>	<u>G</u>	<u>Soil</u>	<u>6</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	
<u>(71-14 (6.5-7.0))</u>	<u>11/17/21</u>	<u>13:00</u>	<u>G</u>	<u>Soil</u>	<u>6</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	

Preservation Used: 1= Ice, 2=HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: Yes No

Custody Seal No.: _____ Cooler Temp. (°C): Obs'd: 3-8 Corr'd: 4-1 Therm ID No: 467300/ADWS

Relinquished by: <u>Pary Z.</u>	Company: <u>ROUX</u>	Date/Time: <u>11/17/21 1320</u>	Received by: <u>JK</u>	Company: <u>TESTAMERICA</u>	Date/Time: <u>11/17/21 1330</u>
Relinquished by: <u>John</u>	Company: <u>EPA-BAIT</u>	Date/Time: <u>11/17/21 1449</u>	Received by: <u>John</u>	Company: <u>ELLE</u>	Date/Time: <u>11/17/21 14:49</u>
Relinquished by: <u>John</u>	Company: <u>ELLE</u>	Date/Time: <u>11/17/21 14:49</u>	Received in Laboratory by: <u>John</u>	Company: <u>ELLE</u>	Date/Time: <u>11/17/21 1715</u>



Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-63750-1

Login Number: 63750

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Leakway, Christian

Question	Answer	Comment
The cooler's custody seal is 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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-63941-1
Client Project/Site: Mueser - Alexandria

For:
Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
12/5/2021 5:47:56 PM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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A handwritten signature in cursive script that reads "Kelly Tessier".

Kelly Tessier
Project Manager
12/5/2021 5:47:56 PM



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DRAFT

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*3	ISTD response or retention time outside acceptable limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
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.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
^5+	Linear Range Check (LRC) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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
PQL	Practical Quantitation Limit

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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

DRAFT



Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Job ID: 410-63941-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-63941-1

Receipt

The samples were received on 11/18/2021 5:27 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.2°C

GC/MS VOA

Method 8260C: Internal standard (ISTD) response for the following sample was outside control limits: G1-13P (6.5-7.0) (410-63941-3). The sample(s) was re-extracted and/or re-analyzed and ISTD response was outside control limits.

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

GC/MS Semi VOA

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

PCBs

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

Pesticides

Method 8081B: The following samples were diluted due to the nature of the sample matrix: G1-11 (9.5-10.0) (410-63941-1), G1-12 (5.5-6.0) (410-63941-2) and G1-13P (6.5-7.0) (410-63941-3). Elevated reporting limits (RLs) are provided.

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

Metals

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.

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-11 (9.5-10.0)

Lab Sample ID: 410-63941-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	3.4	J	7.4	0.59	ug/Kg	1	✳	8260C	Total/NA
Toluene	1.5	J	7.4	0.89	ug/Kg	1	✳	8260C	Total/NA
m&p-Xylene	2.5	J	7.4	1.5	ug/Kg	1	✳	8260C	Total/NA
Benzene	0.86	J	7.4	0.74	ug/Kg	1	✳	8260C	Total/NA
Carbon disulfide	110		7.4	0.89	ug/Kg	1	✳	8260C	Total/NA
o-Xylene	1.6	J	7.4	0.59	ug/Kg	1	✳	8260C	Total/NA
Isopropylbenzene	3.4	J	7.4	0.59	ug/Kg	1	✳	8260C	Total/NA
1,1'-Biphenyl	340		48	22	ug/Kg	1	✳	8270D	Total/NA
2-Methylnaphthalene	64		22	6.6	ug/Kg	1	✳	8270D	Total/NA
4-Methylphenol	27	J	66	22	ug/Kg	1	✳	8270D	Total/NA
Acenaphthene	300		22	4.4	ug/Kg	1	✳	8270D	Total/NA
Acenaphthylene	580		22	5.3	ug/Kg	1	✳	8270D	Total/NA
Acetophenone	40	J	66	22	ug/Kg	1	✳	8270D	Total/NA
Anthracene	2700		22	4.4	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	4700		22	4.4	ug/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	3500		22	4.4	ug/Kg	1	✳	8270D	Total/NA
Carbazole	450		48	22	ug/Kg	1	✳	8270D	Total/NA
Dibenz(a,h)anthracene	1500		22	8.8	ug/Kg	1	✳	8270D	Total/NA
Dibenzofuran	2800		48	22	ug/Kg	1	✳	8270D	Total/NA
Fluorene	1800		22	4.4	ug/Kg	1	✳	8270D	Total/NA
Naphthalene	350		22	8.8	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene - DL	11000		110	22	ug/Kg	5	✳	8270D	Total/NA
Benzo[b]fluoranthene - DL	12000		110	22	ug/Kg	5	✳	8270D	Total/NA
Benzo[g,h,i]perylene - DL	6100		110	22	ug/Kg	5	✳	8270D	Total/NA
Chrysene - DL	9500		110	22	ug/Kg	5	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene - DL	6300		110	26	ug/Kg	5	✳	8270D	Total/NA
Phenanthrene - DL	18000		110	26	ug/Kg	5	✳	8270D	Total/NA
Pyrene - DL	20000		110	22	ug/Kg	5	✳	8270D	Total/NA
Fluoranthene - DL2	30000		5500	1100	ug/Kg	250	✳	8270D	Total/NA
PCB-1254 (1C)	29		22	8.4	ug/Kg	1	✳	8082A	Total/NA
Antimony	7.3		6.2	2.1	mg/Kg	1	✳	6010D	Total/NA
Aluminum	3900		25	13	mg/Kg	1	✳	6010D	Total/NA
Arsenic	36		3.7	1.7	mg/Kg	1	✳	6010D	Total/NA
Barium	100		0.62	0.19	mg/Kg	1	✳	6010D	Total/NA
Beryllium	0.24	J	0.62	0.12	mg/Kg	1	✳	6010D	Total/NA
Cadmium	1.7		0.62	0.12	mg/Kg	1	✳	6010D	Total/NA
Calcium	3400		62	15	mg/Kg	1	✳	6010D	Total/NA
Chromium	12		1.9	0.22	mg/Kg	1	✳	6010D	Total/NA
Cobalt	9.8		0.62	0.18	mg/Kg	1	✳	6010D	Total/NA
Copper	400		2.5	0.95	mg/Kg	1	✳	6010D	Total/NA
Iron	70000		250	77	mg/Kg	10	✳	6010D	Total/NA
Lead	720		1.9	0.74	mg/Kg	1	✳	6010D	Total/NA
Magnesium	580		12	4.9	mg/Kg	1	✳	6010D	Total/NA
Manganese	140		1.2	0.64	mg/Kg	1	✳	6010D	Total/NA
Nickel	15	^5+	1.2	0.32	mg/Kg	1	✳	6010D	Total/NA
Potassium	1100		62	25	mg/Kg	1	✳	6010D	Total/NA
Selenium	8.5		6.2	1.9	mg/Kg	1	✳	6010D	Total/NA
Silver	0.70	J ^5-	1.2	0.49	mg/Kg	1	✳	6010D	Total/NA
Sodium	100	J	120	57	mg/Kg	1	✳	6010D	Total/NA
Zinc	590		2.5	1.2	mg/Kg	1	✳	6010D	Total/NA
Vanadium	20		1.2	0.53	mg/Kg	1	✳	6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-11 (9.5-10.0) (Continued)

Lab Sample ID: 410-63941-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	7.8		0.78	0.32	mg/Kg	10	*	7471B	Total/NA

Client Sample ID: G1-12 (5.5-6.0)

Lab Sample ID: 410-63941-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Styrene	0.53	J	5.9	0.47	ug/Kg	1	*	8260C	Total/NA
Acetone	26		24	7.1	ug/Kg	1	*	8260C	Total/NA
Carbon disulfide	1.3	J	5.9	0.71	ug/Kg	1	*	8260C	Total/NA
2-Butanone	3.2	J	12	2.4	ug/Kg	1	*	8260C	Total/NA
2-Methylnaphthalene	69		21	6.1	ug/Kg	1	*	8270D	Total/NA
Acenaphthylene	170		21	4.9	ug/Kg	1	*	8270D	Total/NA
Acetophenone	54	J	62	21	ug/Kg	1	*	8270D	Total/NA
Anthracene	160		21	4.1	ug/Kg	1	*	8270D	Total/NA
Benzo[a]anthracene	1000		21	4.1	ug/Kg	1	*	8270D	Total/NA
Benzo[a]pyrene	400		21	4.1	ug/Kg	1	*	8270D	Total/NA
Benzo[b]fluoranthene	1600		21	4.1	ug/Kg	1	*	8270D	Total/NA
Benzo[g,h,i]perylene	900		21	4.1	ug/Kg	1	*	8270D	Total/NA
Benzo[k]fluoranthene	560		21	4.1	ug/Kg	1	*	8270D	Total/NA
Bis(2-ethylhexyl) phthalate	200	J	210	82	ug/Kg	1	*	8270D	Total/NA
Carbazole	52		45	21	ug/Kg	1	*	8270D	Total/NA
Chrysene	1100		21	4.1	ug/Kg	1	*	8270D	Total/NA
Dibenz(a,h)anthracene	240		21	8.2	ug/Kg	1	*	8270D	Total/NA
Dibenzofuran	39	J	45	21	ug/Kg	1	*	8270D	Total/NA
Fluoranthene	520		21	4.1	ug/Kg	1	*	8270D	Total/NA
Fluorene	43		21	4.1	ug/Kg	1	*	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	900		21	4.9	ug/Kg	1	*	8270D	Total/NA
Naphthalene	180		21	8.2	ug/Kg	1	*	8270D	Total/NA
Phenanthrene	200		21	4.9	ug/Kg	1	*	8270D	Total/NA
Pyrene	390		21	4.1	ug/Kg	1	*	8270D	Total/NA
beta-BHC (2C)	3.2	J p	6.2	2.7	ug/Kg	5	*	8081B	Total/NA
Methoxychlor (1C)	22	J	41	11	ug/Kg	5	*	8081B	Total/NA
p,p'-DDD (1C)	4.4	J p	10	2.0	ug/Kg	5	*	8081B	Total/NA
Antimony	2.1	J	5.7	1.9	mg/Kg	1	*	6010D	Total/NA
Aluminum	11000		23	12	mg/Kg	1	*	6010D	Total/NA
Arsenic	9.7		3.4	1.6	mg/Kg	1	*	6010D	Total/NA
Barium	170		0.57	0.17	mg/Kg	1	*	6010D	Total/NA
Beryllium	0.40	J	0.57	0.11	mg/Kg	1	*	6010D	Total/NA
Cadmium	0.16	J	0.57	0.11	mg/Kg	1	*	6010D	Total/NA
Calcium	7600		57	14	mg/Kg	1	*	6010D	Total/NA
Chromium	18		1.7	0.20	mg/Kg	1	*	6010D	Total/NA
Cobalt	7.1		0.57	0.17	mg/Kg	1	*	6010D	Total/NA
Copper	37		2.3	0.88	mg/Kg	1	*	6010D	Total/NA
Iron	51000		230	71	mg/Kg	10	*	6010D	Total/NA
Lead	81		1.7	0.68	mg/Kg	1	*	6010D	Total/NA
Magnesium	1300		11	4.6	mg/Kg	1	*	6010D	Total/NA
Manganese	180		1.1	0.59	mg/Kg	1	*	6010D	Total/NA
Nickel	13	^5+	1.1	0.30	mg/Kg	1	*	6010D	Total/NA
Potassium	2300		57	23	mg/Kg	1	*	6010D	Total/NA
Selenium	4.5	J	5.7	1.7	mg/Kg	1	*	6010D	Total/NA
Sodium	250		110	53	mg/Kg	1	*	6010D	Total/NA
Zinc	68		2.3	1.1	mg/Kg	1	*	6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-12 (5.5-6.0) (Continued)

Lab Sample ID: 410-63941-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	29		1.1	0.49	mg/Kg	1	☒	6010D	Total/NA
Mercury	0.070	J	0.073	0.031	mg/Kg	1	☒	7471B	Total/NA

Client Sample ID: G1-13P (6.5-7.0)

Lab Sample ID: 410-63941-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	10	J	23	7.0	ug/Kg	1	☒	8260C	Total/NA
2-Methylnaphthalene	70		20	6.1	ug/Kg	1	☒	8270D	Total/NA
Acenaphthene	8.5	J	20	4.1	ug/Kg	1	☒	8270D	Total/NA
Acenaphthylene	22		20	4.9	ug/Kg	1	☒	8270D	Total/NA
Anthracene	32		20	4.1	ug/Kg	1	☒	8270D	Total/NA
Benzaldehyde	60	J	200	41	ug/Kg	1	☒	8270D	Total/NA
Benzo[a]anthracene	67		20	4.1	ug/Kg	1	☒	8270D	Total/NA
Benzo[a]pyrene	81		20	4.1	ug/Kg	1	☒	8270D	Total/NA
Benzo[b]fluoranthene	94		20	4.1	ug/Kg	1	☒	8270D	Total/NA
Benzo[g,h,i]perylene	61		20	4.1	ug/Kg	1	☒	8270D	Total/NA
Benzo[k]fluoranthene	37		20	4.1	ug/Kg	1	☒	8270D	Total/NA
Chrysene	82		20	4.1	ug/Kg	1	☒	8270D	Total/NA
Dibenz(a,h)anthracene	24		20	8.2	ug/Kg	1	☒	8270D	Total/NA
Fluoranthene	110		20	4.1	ug/Kg	1	☒	8270D	Total/NA
Fluorene	24		20	4.1	ug/Kg	1	☒	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	58		20	4.9	ug/Kg	1	☒	8270D	Total/NA
Naphthalene	280		20	8.2	ug/Kg	1	☒	8270D	Total/NA
Phenanthrene	80		20	4.9	ug/Kg	1	☒	8270D	Total/NA
Pyrene	100		20	4.1	ug/Kg	1	☒	8270D	Total/NA
PCB-1254 (1C)	14	J	21	7.9	ug/Kg	1	☒	8082A	Total/NA
PCB-1260 (2C)	13	J	21	7.9	ug/Kg	1	☒	8082A	Total/NA
Aluminum	9600		20	11	mg/Kg	1	☒	6010D	Total/NA
Arsenic	4.1		3.0	1.4	mg/Kg	1	☒	6010D	Total/NA
Barium	67		0.50	0.15	mg/Kg	1	☒	6010D	Total/NA
Beryllium	0.47	J	0.50	0.10	mg/Kg	1	☒	6010D	Total/NA
Cadmium	0.18	J	0.50	0.10	mg/Kg	1	☒	6010D	Total/NA
Calcium	2500		50	12	mg/Kg	1	☒	6010D	Total/NA
Chromium	15		1.5	0.18	mg/Kg	1	☒	6010D	Total/NA
Cobalt	5.2		0.50	0.15	mg/Kg	1	☒	6010D	Total/NA
Copper	17		2.0	0.77	mg/Kg	1	☒	6010D	Total/NA
Iron	12000		20	6.2	mg/Kg	1	☒	6010D	Total/NA
Lead	36		1.5	0.60	mg/Kg	1	☒	6010D	Total/NA
Magnesium	1400		10	4.0	mg/Kg	1	☒	6010D	Total/NA
Manganese	110		1.0	0.52	mg/Kg	1	☒	6010D	Total/NA
Nickel	10	^5+	1.0	0.26	mg/Kg	1	☒	6010D	Total/NA
Potassium	1100		50	20	mg/Kg	1	☒	6010D	Total/NA
Selenium	2.1	J	5.0	1.5	mg/Kg	1	☒	6010D	Total/NA
Silver	0.56	J ^5-	1.0	0.40	mg/Kg	1	☒	6010D	Total/NA
Sodium	74	J	100	46	mg/Kg	1	☒	6010D	Total/NA
Zinc	56		2.0	1.0	mg/Kg	1	☒	6010D	Total/NA
Vanadium	24		1.0	0.43	mg/Kg	1	☒	6010D	Total/NA
Mercury	0.057	J	0.070	0.029	mg/Kg	1	☒	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-11 (9.5-10.0)

Lab Sample ID: 410-63941-1

Date Collected: 11/18/21 11:35

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 75.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.59	U	7.4	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
trans-1,3-Dichloropropene	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Ethylbenzene	3.4	J	7.4	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Styrene	0.59	U	7.4	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
1,4-Dichlorobenzene	0.59	U	7.4	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
1,2-Dibromoethane	0.59	U	7.4	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
1,2-Dichloroethane	0.89	U	7.4	0.89	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
4-Methyl-2-pentanone	1.5	U	15	1.5	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Methylcyclohexane	0.89	U	7.4	0.89	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Toluene	1.5	J	7.4	0.89	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Chlorobenzene	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Cyclohexane	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
1,2,4-Trichlorobenzene	7.4	U	15	7.4	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
1,4-Dioxane	55	U	370	55	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Dibromochloromethane	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Tetrachloroethene	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
cis-1,2-Dichloroethene	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
trans-1,2-Dichloroethene	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Methyl tertiary butyl ether	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
m&p-Xylene	2.5	J	7.4	1.5	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
1,3-Dichlorobenzene	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Carbon tetrachloride	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
2-Hexanone	1.5	U	15	1.5	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Acetone	8.9	U	30	8.9	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Chloroform	0.89	U	7.4	0.89	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Benzene	0.86	J	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
1,1,1-Trichloroethane	0.89	U	7.4	0.89	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Bromomethane	1.0	U	7.4	1.0	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Chloromethane	0.89	U	7.4	0.89	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Bromochloromethane	0.89	U	7.4	0.89	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Chloroethane	1.5	U	7.4	1.5	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Vinyl chloride	0.89	U	7.4	0.89	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Methylene Chloride	3.0	U	7.4	3.0	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Carbon disulfide	110		7.4	0.89	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Bromoform	7.4	U	15	7.4	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Bromodichloromethane	0.59	U	7.4	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
1,1-Dichloroethane	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
1,1-Dichloroethene	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Trichlorofluoromethane	1.0	U	7.4	1.0	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Dichlorodifluoromethane	0.89	U	7.4	0.89	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Freon 113	0.89	U	15	0.89	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
1,2-Dichloropropane	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
2-Butanone	3.0	U	15	3.0	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
1,1,2-Trichloroethane	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Trichloroethene	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Methyl acetate	1.5	U	7.4	1.5	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
1,1,2,2-Tetrachloroethane	0.59	U	7.4	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
1,2,3-Trichlorobenzene	7.4	U	15	7.4	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
o-Xylene	1.6	J	7.4	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-11 (9.5-10.0)

Lab Sample ID: 410-63941-1

Date Collected: 11/18/21 11:35

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 75.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
1,2-Dibromo-3-Chloropropane	0.74	U	7.4	0.74	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Isopropylbenzene	3.4	J	7.4	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		54 - 135				11/19/21 09:43	11/24/21 14:01	1
4-Bromofluorobenzene (Surr)	94		50 - 131				11/19/21 09:43	11/24/21 14:01	1
Dibromofluoromethane (Surr)	97		50 - 141				11/19/21 09:43	11/24/21 14:01	1
Toluene-d8 (Surr)	105		52 - 141				11/19/21 09:43	11/24/21 14:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	340		48	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
1,2,4,5-Tetrachlorobenzene	22	U	48	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
2,2'-oxybis[1-chloropropane]	26	U	57	26	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
2,3,4,6-Tetrachlorophenol	88	U	220	88	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
2,4,5-Trichlorophenol	22	U	48	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
2,4,6-Trichlorophenol	22	U	48	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
2,4-Dichlorophenol	26	U	57	26	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
2,4-Dimethylphenol	22	U	48	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
2,4-Dinitrophenol	220	U	1300	220	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
2,4-Dinitrotoluene	44	U	220	44	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
2,6-Dinitrotoluene	22	U	48	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
2-Chloronaphthalene	18	U	44	18	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
2-Chlorophenol	22	U	48	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
2-Methylnaphthalene	64		22	6.6	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
2-Methylphenol	26	U	66	26	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
2-Nitroaniline	22	U	66	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
2-Nitrophenol	26	U	66	26	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
3,3'-Dichlorobenzidine	44	U	220	44	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
3-Nitroaniline	44	U	220	44	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
4,6-Dinitro-2-methylphenol	220	U	660	220	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
4-Bromophenyl-phenylether	22	U	48	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
4-Chloro-3-methylphenol	26	U	66	26	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
4-Methylphenol	27	J	66	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
4-Nitroaniline	44	U	220	44	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
4-Nitrophenol	220	U	660	220	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Acenaphthene	300		22	4.4	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Acenaphthylene	580		22	5.3	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Acetophenone	40	J	66	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Anthracene	2700		22	4.4	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Atrazine	88	U	220	88	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Benzaldehyde	44	U	220	44	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Benzo[a]pyrene	4700		22	4.4	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Benzo[k]fluoranthene	3500		22	4.4	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Bis(2-chloroethoxy)methane	22	U	48	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Bis(2-chloroethyl)ether	22	U	48	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Bis(2-ethylhexyl) phthalate	88	U	220	88	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Butylbenzylphthalate	88	U	220	88	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Caprolactam	44	U	220	44	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-11 (9.5-10.0)

Lab Sample ID: 410-63941-1

Date Collected: 11/18/21 11:35

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 75.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbazole	450		48	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Di-n-butyl phthalate	88	U	220	88	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Di-n-octyl phthalate	88	U	220	88	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Dibenz(a,h)anthracene	1500		22	8.8	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Dibenzofuran	2800		48	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Diethyl phthalate	88	U	220	88	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Dimethyl phthalate	88	U	220	88	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Fluorene	1800		22	4.4	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Hexachlorobenzene	8.8	U	22	8.8	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Hexachlorobutadiene	26	U	66	26	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Hexachlorocyclopentadiene	220	U	660	220	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Hexachloroethane	44	U	220	44	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Isophorone	22	U	88	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
N-Nitrosodi-n-propylamine	44	U	88	44	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
N-Nitrosodiphenylamine	22	U	48	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Naphthalene	350		22	8.8	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Nitrobenzene	22	U	48	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Phenol	22	U	48	22	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1
Pentachlorophenol	88	U	220	88	ug/Kg	☼	11/23/21 19:25	11/25/21 01:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	61		45 - 108	11/23/21 19:25	11/25/21 01:41	1
Nitrobenzene-d5 (Surr)	3	S1-	32 - 97	11/23/21 19:25	11/25/21 01:41	1
2-Fluorophenol (Surr)	5	S1-	26 - 96	11/23/21 19:25	11/25/21 01:41	1
2-Fluorobiphenyl (Surr)	6	S1-	39 - 100	11/23/21 19:25	11/25/21 01:41	1
2,4,6-Tribromophenol (Surr)	22		13 - 121	11/23/21 19:25	11/25/21 01:41	1
Phenol-d5 (Surr)	7	S1-	27 - 104	11/23/21 19:25	11/25/21 01:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	11000		110	22	ug/Kg	☼	11/23/21 19:25	11/29/21 13:44	5
Benzo[b]fluoranthene	12000		110	22	ug/Kg	☼	11/23/21 19:25	11/29/21 13:44	5
Benzo[g,h,i]perylene	6100		110	22	ug/Kg	☼	11/23/21 19:25	11/29/21 13:44	5
Chrysene	9500		110	22	ug/Kg	☼	11/23/21 19:25	11/29/21 13:44	5
Indeno[1,2,3-cd]pyrene	6300		110	26	ug/Kg	☼	11/23/21 19:25	11/29/21 13:44	5
Phenanthrene	18000		110	26	ug/Kg	☼	11/23/21 19:25	11/29/21 13:44	5
Pyrene	20000		110	22	ug/Kg	☼	11/23/21 19:25	11/29/21 13:44	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	68		45 - 108	11/23/21 19:25	11/29/21 13:44	5
Nitrobenzene-d5 (Surr)	3	S1-	32 - 97	11/23/21 19:25	11/29/21 13:44	5
2-Fluorophenol (Surr)	6	S1-	26 - 96	11/23/21 19:25	11/29/21 13:44	5
2-Fluorobiphenyl (Surr)	6	S1-	39 - 100	11/23/21 19:25	11/29/21 13:44	5
2,4,6-Tribromophenol (Surr)	25		13 - 121	11/23/21 19:25	11/29/21 13:44	5
Phenol-d5 (Surr)	8	S1-	27 - 104	11/23/21 19:25	11/29/21 13:44	5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	30000		5500	1100	ug/Kg	☼	11/23/21 19:25	11/29/21 16:45	250

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-11 (9.5-10.0)

Lab Sample ID: 410-63941-1

Date Collected: 11/18/21 11:35

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 75.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14 (Surr)	110	S1+	45 - 108	11/23/21 19:25	11/29/21 16:45	250
Nitrobenzene-d5 (Surr)	12	S1-	32 - 97	11/23/21 19:25	11/29/21 16:45	250
2-Fluorophenol (Surr)	9	S1-	26 - 96	11/23/21 19:25	11/29/21 16:45	250
2-Fluorobiphenyl (Surr)	5	S1-	39 - 100	11/23/21 19:25	11/29/21 16:45	250
2,4,6-Tribromophenol (Surr)	43		13 - 121	11/23/21 19:25	11/29/21 16:45	250
Phenol-d5 (Surr)	0	S1-	27 - 104	11/23/21 19:25	11/29/21 16:45	250

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	22	U	110	22	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
alpha-BHC (1C)	22	U	110	22	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
alpha-Chlordane (1C)	22	U	110	22	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
beta-BHC (2C)	58	U	130	58	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
delta-BHC (1C)	59	U	130	59	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
Dieldrin (1C)	43	U	220	43	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
Endosulfan I (1C)	29	U	110	29	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
Endosulfan II (1C)	140	U	300	140	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
Endosulfan sulfate (1C)	43	U	220	43	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
Endrin (1C)	89	U	220	89	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
Endrin aldehyde (1C)	43	U	220	43	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
Endrin ketone (1C)	79	U	260	79	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
gamma-BHC (Lindane) (1C)	28	U	110	28	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
gamma-Chlordane (1C)	33	U	110	33	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
Heptachlor (1C)	41	U	110	41	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
Heptachlor epoxide (1C)	22	U	110	22	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
Methoxychlor (1C)	240	U	880	240	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
Toxaphene (1C)	1800	U	4300	1800	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
p,p'-DDD (1C)	43	U	220	43	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
p,p'-DDE (1C)	43	U	220	43	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100
p,p'-DDT (1C)	100	U	220	100	ug/Kg	✱	11/21/21 08:48	11/22/21 11:29	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	96		54 - 143	11/21/21 08:48	11/22/21 11:29	100
DCB Decachlorobiphenyl (Surr) (2C)	86		54 - 143	11/21/21 08:48	11/22/21 11:29	100
Tetrachloro-m-xylene (Surr) (1C)	136	S1+	20 - 131	11/21/21 08:48	11/22/21 11:29	100
Tetrachloro-m-xylene (Surr) (2C)	102		20 - 131	11/21/21 08:48	11/22/21 11:29	100

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	7.0	U	22	7.0	ug/Kg	✱	11/21/21 08:48	11/22/21 03:10	1
PCB-1221 (1C)	7.0	U	22	7.0	ug/Kg	✱	11/21/21 08:48	11/22/21 03:10	1
PCB-1232 (1C)	7.0	U	22	7.0	ug/Kg	✱	11/21/21 08:48	11/22/21 03:10	1
PCB-1242 (1C)	7.0	U	22	7.0	ug/Kg	✱	11/21/21 08:48	11/22/21 03:10	1
PCB-1248 (1C)	7.0	U	22	7.0	ug/Kg	✱	11/21/21 08:48	11/22/21 03:10	1
PCB-1254 (1C)	29		22	8.4	ug/Kg	✱	11/21/21 08:48	11/22/21 03:10	1
PCB-1260 (1C)	8.4	U	22	8.4	ug/Kg	✱	11/21/21 08:48	11/22/21 03:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	84		45 - 143	11/21/21 08:48	11/22/21 03:10	1
DCB Decachlorobiphenyl (Surr) (2C)	88		45 - 143	11/21/21 08:48	11/22/21 03:10	1
Tetrachloro-m-xylene (1C)	90		53 - 140	11/21/21 08:48	11/22/21 03:10	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-11 (9.5-10.0)

Lab Sample ID: 410-63941-1

Date Collected: 11/18/21 11:35

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 75.7

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (2C)	65		53 - 140	11/21/21 08:48	11/22/21 03:10	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	7.3		6.2	2.1	mg/Kg	✳	11/20/21 13:23	11/24/21 19:58	1
Aluminum	3900		25	13	mg/Kg	✳	11/20/21 13:23	11/24/21 11:41	1
Arsenic	36		3.7	1.7	mg/Kg	✳	11/20/21 13:23	11/24/21 19:58	1
Barium	100		0.62	0.19	mg/Kg	✳	11/20/21 13:23	11/24/21 11:41	1
Beryllium	0.24	J	0.62	0.12	mg/Kg	✳	11/20/21 13:23	11/24/21 11:41	1
Cadmium	1.7		0.62	0.12	mg/Kg	✳	11/20/21 13:23	11/24/21 11:41	1
Calcium	3400		62	15	mg/Kg	✳	11/20/21 13:23	11/24/21 11:41	1
Chromium	12		1.9	0.22	mg/Kg	✳	11/20/21 13:23	11/24/21 11:41	1
Cobalt	9.8		0.62	0.18	mg/Kg	✳	11/20/21 13:23	11/24/21 11:41	1
Copper	400		2.5	0.95	mg/Kg	✳	11/20/21 13:23	11/24/21 11:41	1
Iron	70000		250	77	mg/Kg	✳	11/20/21 13:23	11/24/21 20:01	10
Lead	720		1.9	0.74	mg/Kg	✳	11/20/21 13:23	11/24/21 11:41	1
Magnesium	580		12	4.9	mg/Kg	✳	11/20/21 13:23	11/24/21 11:41	1
Manganese	140		1.2	0.64	mg/Kg	✳	11/20/21 13:23	11/24/21 11:41	1
Nickel	15	^5+	1.2	0.32	mg/Kg	✳	11/20/21 13:23	11/24/21 19:58	1
Potassium	1100		62	25	mg/Kg	✳	11/20/21 13:23	11/24/21 19:58	1
Selenium	8.5		6.2	1.9	mg/Kg	✳	11/20/21 13:23	11/24/21 19:58	1
Silver	0.70	J ^5-	1.2	0.49	mg/Kg	✳	11/20/21 13:23	11/24/21 11:41	1
Sodium	100	J	120	57	mg/Kg	✳	11/20/21 13:23	11/24/21 11:41	1
Thallium	1.6	U	3.7	1.6	mg/Kg	✳	11/20/21 13:23	11/29/21 11:37	1
Zinc	590		2.5	1.2	mg/Kg	✳	11/20/21 13:23	11/24/21 11:41	1
Vanadium	20		1.2	0.53	mg/Kg	✳	11/20/21 13:23	11/24/21 11:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	7.8		0.78	0.32	mg/Kg	✳	11/20/21 13:33	11/22/21 17:16	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	24.3		1.0	1.0	%			11/19/21 13:27	1

Client Sample ID: G1-12 (5.5-6.0)

Lab Sample ID: 410-63941-2

Date Collected: 11/18/21 10:10

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.47	U	5.9	0.47	ug/Kg	✳	11/19/21 09:43	11/24/21 14:23	1
trans-1,3-Dichloropropene	0.59	U	5.9	0.59	ug/Kg	✳	11/19/21 09:43	11/24/21 14:23	1
Ethylbenzene	0.47	U	5.9	0.47	ug/Kg	✳	11/19/21 09:43	11/24/21 14:23	1
Styrene	0.53	J	5.9	0.47	ug/Kg	✳	11/19/21 09:43	11/24/21 14:23	1
1,4-Dichlorobenzene	0.47	U	5.9	0.47	ug/Kg	✳	11/19/21 09:43	11/24/21 14:23	1
1,2-Dibromoethane	0.47	U	5.9	0.47	ug/Kg	✳	11/19/21 09:43	11/24/21 14:23	1
1,2-Dichloroethane	0.71	U	5.9	0.71	ug/Kg	✳	11/19/21 09:43	11/24/21 14:23	1
4-Methyl-2-pentanone	1.2	U	12	1.2	ug/Kg	✳	11/19/21 09:43	11/24/21 14:23	1
Methylcyclohexane	0.71	U	5.9	0.71	ug/Kg	✳	11/19/21 09:43	11/24/21 14:23	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-12 (5.5-6.0)

Lab Sample ID: 410-63941-2

Date Collected: 11/18/21 10:10

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.71	U	5.9	0.71	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Chlorobenzene	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Cyclohexane	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
1,2,4-Trichlorobenzene	5.9	U	12	5.9	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
1,4-Dioxane	44	U	290	44	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Dibromochloromethane	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Tetrachloroethene	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
cis-1,2-Dichloroethene	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
trans-1,2-Dichloroethene	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Methyl tertiary butyl ether	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
m&p-Xylene	1.2	U	5.9	1.2	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
1,3-Dichlorobenzene	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Carbon tetrachloride	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
2-Hexanone	1.2	U	12	1.2	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Acetone	26		24	7.1	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Chloroform	0.71	U	5.9	0.71	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Benzene	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
1,1,1-Trichloroethane	0.71	U	5.9	0.71	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Bromomethane	0.82	U	5.9	0.82	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Chloromethane	0.71	U	5.9	0.71	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Bromochloromethane	0.71	U	5.9	0.71	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Chloroethane	1.2	U	5.9	1.2	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Vinyl chloride	0.71	U	5.9	0.71	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Methylene Chloride	2.4	U	5.9	2.4	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Carbon disulfide	1.3	J	5.9	0.71	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Bromoform	5.9	U	12	5.9	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Bromodichloromethane	0.47	U	5.9	0.47	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
1,1-Dichloroethane	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
1,1-Dichloroethene	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Trichlorofluoromethane	0.82	U	5.9	0.82	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Dichlorodifluoromethane	0.71	U	5.9	0.71	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Freon 113	0.71	U	12	0.71	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
1,2-Dichloropropane	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
2-Butanone	3.2	J	12	2.4	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
1,1,2-Trichloroethane	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Trichloroethene	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Methyl acetate	1.2	U	5.9	1.2	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
1,1,2,2-Tetrachloroethane	0.47	U	5.9	0.47	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
1,2,3-Trichlorobenzene	5.9	U	12	5.9	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
o-Xylene	0.47	U	5.9	0.47	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
1,2-Dichlorobenzene	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
1,2-Dibromo-3-Chloropropane	0.59	U	5.9	0.59	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Isopropylbenzene	0.47	U	5.9	0.47	ug/Kg	☼	11/19/21 09:43	11/24/21 14:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		54 - 135				11/19/21 09:43	11/24/21 14:23	1
4-Bromofluorobenzene (Surr)	85		50 - 131				11/19/21 09:43	11/24/21 14:23	1
Dibromofluoromethane (Surr)	100		50 - 141				11/19/21 09:43	11/24/21 14:23	1
Toluene-d8 (Surr)	114		52 - 141				11/19/21 09:43	11/24/21 14:23	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-12 (5.5-6.0)

Lab Sample ID: 410-63941-2

Date Collected: 11/18/21 10:10

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	21	U	45	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
1,2,4,5-Tetrachlorobenzene	21	U	45	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
2,2'-oxybis[1-chloropropane]	25	U	53	25	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
2,3,4,6-Tetrachlorophenol	82	U	210	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
2,4,5-Trichlorophenol	21	U	45	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
2,4,6-Trichlorophenol	21	U	45	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
2,4-Dichlorophenol	25	U	53	25	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
2,4-Dimethylphenol	21	U	45	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
2,4-Dinitrophenol	210	U	1200	210	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
2,4-Dinitrotoluene	41	U	210	41	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
2,6-Dinitrotoluene	21	U	45	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
2-Chloronaphthalene	16	U	41	16	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
2-Chlorophenol	21	U	45	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
2-Methylnaphthalene	69		21	6.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
2-Methylphenol	25	U	62	25	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
2-Nitroaniline	21	U	62	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
2-Nitrophenol	25	U	62	25	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
3,3'-Dichlorobenzidine	41	U	210	41	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
3-Nitroaniline	41	U	210	41	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
4,6-Dinitro-2-methylphenol	210	U	620	210	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
4-Bromophenyl-phenylether	21	U	45	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
4-Chloro-3-methylphenol	25	U	62	25	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
4-Methylphenol	21	U	62	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
4-Nitroaniline	41	U	210	41	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
4-Nitrophenol	210	U	620	210	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Acenaphthene	4.1	U	21	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Acenaphthylene	170		21	4.9	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Acetophenone	54 J		62	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Anthracene	160		21	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Atrazine	82	U	210	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Benzaldehyde	41	U	210	41	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Benzo[a]anthracene	1000		21	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Benzo[a]pyrene	400		21	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Benzo[b]fluoranthene	1600		21	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Benzo[g,h,i]perylene	900		21	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Benzo[k]fluoranthene	560		21	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Bis(2-chloroethoxy)methane	21	U	45	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Bis(2-chloroethyl)ether	21	U	45	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Bis(2-ethylhexyl) phthalate	200 J		210	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Butylbenzylphthalate	82	U	210	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Caprolactam	41	U	210	41	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Carbazole	52		45	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Chrysene	1100		21	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Di-n-butyl phthalate	82	U	210	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Di-n-octyl phthalate	82	U	210	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Dibenz(a,h)anthracene	240		21	8.2	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Dibenzofuran	39 J		45	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Diethyl phthalate	82	U	210	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Dimethyl phthalate	82	U	210	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-12 (5.5-6.0)

Lab Sample ID: 410-63941-2

Date Collected: 11/18/21 10:10

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 80.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	520		21	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Fluorene	43		21	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Hexachlorobenzene	8.2	U	21	8.2	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Hexachlorobutadiene	25	U	62	25	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Hexachlorocyclopentadiene	210	U	620	210	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Hexachloroethane	41	U	210	41	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Indeno[1,2,3-cd]pyrene	900		21	4.9	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Isophorone	21	U	82	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
N-Nitrosodi-n-propylamine	41	U	82	41	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
N-Nitrosodiphenylamine	21	U	45	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Naphthalene	180		21	8.2	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Nitrobenzene	21	U	45	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Phenanthrene	200		21	4.9	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Phenol	21	U	45	21	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Pyrene	390		21	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1
Pentachlorophenol	82	U	210	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	95		45 - 108	11/23/21 19:25	11/25/21 02:06	1
Nitrobenzene-d5 (Surr)	75		32 - 97	11/23/21 19:25	11/25/21 02:06	1
2-Fluorophenol (Surr)	77		26 - 96	11/23/21 19:25	11/25/21 02:06	1
2-Fluorobiphenyl (Surr)	81		39 - 100	11/23/21 19:25	11/25/21 02:06	1
2,4,6-Tribromophenol (Surr)	86		13 - 121	11/23/21 19:25	11/25/21 02:06	1
Phenol-d5 (Surr)	78		27 - 104	11/23/21 19:25	11/25/21 02:06	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	1.0	U	5.1	1.0	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
alpha-BHC (1C)	1.0	U	5.1	1.0	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
alpha-Chlordane (1C)	1.0	U	5.1	1.0	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
beta-BHC (2C)	3.2	J p	6.2	2.7	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
delta-BHC (2C)	2.8	U	6.2	2.8	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
Dieldrin (1C)	2.0	U	10	2.0	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
Endosulfan I (1C)	1.4	U	5.1	1.4	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
Endosulfan II (1C)	6.8	U	14	6.8	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
Endosulfan sulfate (1C)	2.0	U	10	2.0	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
Endrin (2C)	4.2	U	10	4.2	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
Endrin aldehyde (1C)	2.0	U	10	2.0	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
Endrin ketone (1C)	3.7	U	12	3.7	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
gamma-BHC (Lindane) (2C)	1.3	U	5.1	1.3	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
gamma-Chlordane (1C)	1.5	U	5.1	1.5	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
Heptachlor (1C)	1.9	U	5.1	1.9	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
Heptachlor epoxide (1C)	1.0	U	5.1	1.0	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
Methoxychlor (1C)	22	J	41	11	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
Toxaphene (1C)	86	U	200	86	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
p,p'-DDD (1C)	4.4	J p	10	2.0	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
p,p'-DDE (1C)	2.0	U	10	2.0	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5
p,p'-DDT (1C)	4.9	U	10	4.9	ug/Kg	☼	11/21/21 08:48	11/22/21 11:49	5

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-12 (5.5-6.0)

Lab Sample ID: 410-63941-2

Date Collected: 11/18/21 10:10

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 80.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	72		54 - 143	11/21/21 08:48	11/22/21 11:49	5
DCB Decachlorobiphenyl (Surr) (2C)	74		54 - 143	11/21/21 08:48	11/22/21 11:49	5
Tetrachloro-m-xylene (Surr) (1C)	54		20 - 131	11/21/21 08:48	11/22/21 11:49	5
Tetrachloro-m-xylene (Surr) (2C)	78		20 - 131	11/21/21 08:48	11/22/21 11:49	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	6.5	U	21	6.5	ug/Kg	☼	11/21/21 08:48	11/22/21 03:22	1
PCB-1221 (1C)	6.5	U	21	6.5	ug/Kg	☼	11/21/21 08:48	11/22/21 03:22	1
PCB-1232 (1C)	6.5	U	21	6.5	ug/Kg	☼	11/21/21 08:48	11/22/21 03:22	1
PCB-1242 (1C)	6.5	U	21	6.5	ug/Kg	☼	11/21/21 08:48	11/22/21 03:22	1
PCB-1248 (1C)	6.5	U	21	6.5	ug/Kg	☼	11/21/21 08:48	11/22/21 03:22	1
PCB-1254 (1C)	7.9	U	21	7.9	ug/Kg	☼	11/21/21 08:48	11/22/21 03:22	1
PCB-1260 (1C)	7.9	U	21	7.9	ug/Kg	☼	11/21/21 08:48	11/22/21 03:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	80		45 - 143	11/21/21 08:48	11/22/21 03:22	1
DCB Decachlorobiphenyl (Surr) (2C)	80		45 - 143	11/21/21 08:48	11/22/21 03:22	1
Tetrachloro-m-xylene (1C)	87		53 - 140	11/21/21 08:48	11/22/21 03:22	1
Tetrachloro-m-xylene (2C)	76		53 - 140	11/21/21 08:48	11/22/21 03:22	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.1	J	5.7	1.9	mg/Kg	☼	11/20/21 13:23	11/24/21 20:04	1
Aluminum	11000		23	12	mg/Kg	☼	11/20/21 13:23	11/24/21 11:44	1
Arsenic	9.7		3.4	1.6	mg/Kg	☼	11/20/21 13:23	11/24/21 20:04	1
Barium	170		0.57	0.17	mg/Kg	☼	11/20/21 13:23	11/24/21 11:44	1
Beryllium	0.40	J	0.57	0.11	mg/Kg	☼	11/20/21 13:23	11/24/21 11:44	1
Cadmium	0.16	J	0.57	0.11	mg/Kg	☼	11/20/21 13:23	11/24/21 11:44	1
Calcium	7600		57	14	mg/Kg	☼	11/20/21 13:23	11/24/21 11:44	1
Chromium	18		1.7	0.20	mg/Kg	☼	11/20/21 13:23	11/24/21 11:44	1
Cobalt	7.1		0.57	0.17	mg/Kg	☼	11/20/21 13:23	11/24/21 11:44	1
Copper	37		2.3	0.88	mg/Kg	☼	11/20/21 13:23	11/24/21 11:44	1
Iron	51000		230	71	mg/Kg	☼	11/20/21 13:23	11/24/21 20:27	10
Lead	81		1.7	0.68	mg/Kg	☼	11/20/21 13:23	11/24/21 11:44	1
Magnesium	1300		11	4.6	mg/Kg	☼	11/20/21 13:23	11/24/21 11:44	1
Manganese	180		1.1	0.59	mg/Kg	☼	11/20/21 13:23	11/24/21 11:44	1
Nickel	13	^5+	1.1	0.30	mg/Kg	☼	11/20/21 13:23	11/24/21 20:04	1
Potassium	2300		57	23	mg/Kg	☼	11/20/21 13:23	11/24/21 20:04	1
Selenium	4.5	J	5.7	1.7	mg/Kg	☼	11/20/21 13:23	11/24/21 20:04	1
Silver	0.46	U ^5-	1.1	0.46	mg/Kg	☼	11/20/21 13:23	11/24/21 11:44	1
Sodium	250		110	53	mg/Kg	☼	11/20/21 13:23	11/24/21 11:44	1
Thallium	1.5	U	3.4	1.5	mg/Kg	☼	11/20/21 13:23	11/29/21 11:40	1
Zinc	68		2.3	1.1	mg/Kg	☼	11/20/21 13:23	11/24/21 11:44	1
Vanadium	29		1.1	0.49	mg/Kg	☼	11/20/21 13:23	11/24/21 11:44	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.070	J	0.073	0.031	mg/Kg	☼	11/20/21 13:33	11/22/21 17:19	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-12 (5.5-6.0)

Lab Sample ID: 410-63941-2

Date Collected: 11/18/21 10:10

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 80.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.4		1.0	1.0	%			11/19/21 13:27	1

Client Sample ID: G1-13P (6.5-7.0)

Lab Sample ID: 410-63941-3

Date Collected: 11/18/21 08:15

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.46	U	5.8	0.46	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
trans-1,3-Dichloropropene	0.58	U	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Ethylbenzene	0.46	U	5.8	0.46	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Styrene	0.46	U	5.8	0.46	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
1,4-Dichlorobenzene	0.46	U *3	5.8	0.46	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
1,2-Dibromoethane	0.46	U	5.8	0.46	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
1,2-Dichloroethane	0.70	U	5.8	0.70	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
4-Methyl-2-pentanone	1.2	U	12	1.2	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Methylcyclohexane	0.70	U	5.8	0.70	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Toluene	0.70	U	5.8	0.70	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Chlorobenzene	0.58	U	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Cyclohexane	0.58	U	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
1,2,4-Trichlorobenzene	5.8	U *3	12	5.8	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
1,4-Dioxane	43	U	290	43	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Dibromochloromethane	0.58	U	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Tetrachloroethene	0.58	U	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
cis-1,2-Dichloroethene	0.58	U	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
trans-1,2-Dichloroethene	0.58	U	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Methyl tertiary butyl ether	0.58	U	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
m&p-Xylene	1.2	U	5.8	1.2	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
1,3-Dichlorobenzene	0.58	U *3	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Carbon tetrachloride	0.58	U	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
2-Hexanone	1.2	U	12	1.2	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Acetone	10	J	23	7.0	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Chloroform	0.70	U	5.8	0.70	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Benzene	0.58	U	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
1,1,1-Trichloroethane	0.70	U	5.8	0.70	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Bromomethane	0.81	U	5.8	0.81	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Chloromethane	0.70	U	5.8	0.70	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Bromochloromethane	0.70	U	5.8	0.70	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Chloroethane	1.2	U	5.8	1.2	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Vinyl chloride	0.70	U	5.8	0.70	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Methylene Chloride	2.3	U	5.8	2.3	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Carbon disulfide	0.70	U	5.8	0.70	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Bromoform	5.8	U	12	5.8	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Bromodichloromethane	0.46	U	5.8	0.46	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
1,1-Dichloroethane	0.58	U	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
1,1-Dichloroethene	0.58	U	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Trichlorofluoromethane	0.81	U	5.8	0.81	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Dichlorodifluoromethane	0.70	U	5.8	0.70	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Freon 113	0.70	U	12	0.70	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
1,2-Dichloropropane	0.58	U	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-13P (6.5-7.0)

Lab Sample ID: 410-63941-3

Date Collected: 11/18/21 08:15

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone	2.3	U	12	2.3	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
1,1,2-Trichloroethane	0.58	U	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Trichloroethene	0.58	U	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Methyl acetate	1.2	U	5.8	1.2	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
1,1,1,2-Tetrachloroethane	0.46	U *3	5.8	0.46	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
1,2,3-Trichlorobenzene	5.8	U *3	12	5.8	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
o-Xylene	0.46	U	5.8	0.46	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
1,2-Dichlorobenzene	0.58	U *3	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
1,2-Dibromo-3-Chloropropane	0.58	U *3	5.8	0.58	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Isopropylbenzene	0.46	U	5.8	0.46	ug/Kg	☼	11/19/21 09:43	11/24/21 14:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		54 - 135				11/19/21 09:43	11/24/21 14:46	1
4-Bromofluorobenzene (Surr)	80		50 - 131				11/19/21 09:43	11/24/21 14:46	1
Dibromofluoromethane (Surr)	103		50 - 141				11/19/21 09:43	11/24/21 14:46	1
Toluene-d8 (Surr)	119		52 - 141				11/19/21 09:43	11/24/21 14:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	20	U	45	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
1,2,4,5-Tetrachlorobenzene	20	U	45	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
2,2'-oxybis[1-chloropropane]	24	U	53	24	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
2,3,4,6-Tetrachlorophenol	82	U	200	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
2,4,5-Trichlorophenol	20	U	45	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
2,4,6-Trichlorophenol	20	U	45	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
2,4-Dichlorophenol	24	U	53	24	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
2,4-Dimethylphenol	20	U	45	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
2,4-Dinitrophenol	200	U	1200	200	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
2,4-Dinitrotoluene	41	U	200	41	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
2,6-Dinitrotoluene	20	U	45	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
2-Chloronaphthalene	16	U	41	16	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
2-Chlorophenol	20	U	45	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
2-Methylnaphthalene	70		20	6.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
2-Methylphenol	24	U	61	24	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
2-Nitroaniline	20	U	61	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
2-Nitrophenol	24	U	61	24	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
3,3'-Dichlorobenzidine	41	U	200	41	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
3-Nitroaniline	41	U	200	41	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
4,6-Dinitro-2-methylphenol	200	U	610	200	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
4-Bromophenyl-phenylether	20	U	45	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
4-Chloro-3-methylphenol	24	U	61	24	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
4-Methylphenol	20	U	61	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
4-Nitroaniline	41	U	200	41	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
4-Nitrophenol	200	U	610	200	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Acenaphthene	8.5	J	20	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Acenaphthylene	22		20	4.9	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Acetophenone	20	U	61	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Anthracene	32		20	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Atrazine	82	U	200	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Benzaldehyde	60	J	200	41	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-13P (6.5-7.0)

Lab Sample ID: 410-63941-3

Date Collected: 11/18/21 08:15

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	67		20	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Benzo[a]pyrene	81		20	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Benzo[b]fluoranthene	94		20	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Benzo[g,h,i]perylene	61		20	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Benzo[k]fluoranthene	37		20	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Bis(2-chloroethoxy)methane	20	U	45	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Bis(2-chloroethyl)ether	20	U	45	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Bis(2-ethylhexyl) phthalate	82	U	200	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Butylbenzylphthalate	82	U	200	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Caprolactam	41	U	200	41	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Carbazole	20	U	45	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Chrysene	82		20	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Di-n-butyl phthalate	82	U	200	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Di-n-octyl phthalate	82	U	200	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Dibenz(a,h)anthracene	24		20	8.2	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Dibenzofuran	20	U	45	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Diethyl phthalate	82	U	200	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Dimethyl phthalate	82	U	200	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Fluoranthene	110		20	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Fluorene	24		20	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Hexachlorobenzene	8.2	U	20	8.2	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Hexachlorobutadiene	24	U	61	24	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Hexachlorocyclopentadiene	200	U	610	200	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Hexachloroethane	41	U	200	41	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Indeno[1,2,3-cd]pyrene	58		20	4.9	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Isophorone	20	U	82	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
N-Nitrosodi-n-propylamine	41	U	82	41	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
N-Nitrosodiphenylamine	20	U	45	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Naphthalene	280		20	8.2	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Nitrobenzene	20	U	45	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Phenanthrene	80		20	4.9	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Phenol	20	U	45	20	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Pyrene	100		20	4.1	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1
Pentachlorophenol	82	U	200	82	ug/Kg	☼	11/23/21 19:25	11/25/21 02:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14 (Surr)	94		45 - 108	11/23/21 19:25	11/25/21 02:31	1
Nitrobenzene-d5 (Surr)	74		32 - 97	11/23/21 19:25	11/25/21 02:31	1
2-Fluorophenol (Surr)	80		26 - 96	11/23/21 19:25	11/25/21 02:31	1
2-Fluorobiphenyl (Surr)	83		39 - 100	11/23/21 19:25	11/25/21 02:31	1
2,4,6-Tribromophenol (Surr)	86		13 - 121	11/23/21 19:25	11/25/21 02:31	1
Phenol-d5 (Surr)	80		27 - 104	11/23/21 19:25	11/25/21 02:31	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	1.0	U	5.1	1.0	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
alpha-BHC (1C)	1.0	U	5.1	1.0	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
alpha-Chlordane (1C)	1.0	U	5.1	1.0	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
beta-BHC (1C)	2.7	U	6.1	2.7	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
delta-BHC (1C)	2.8	U	6.1	2.8	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-13P (6.5-7.0)

Lab Sample ID: 410-63941-3

Date Collected: 11/18/21 08:15

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dieldrin (1C)	2.0	U	10	2.0	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
Endosulfan I (1C)	1.4	U	5.1	1.4	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
Endosulfan II (1C)	6.8	U	14	6.8	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
Endosulfan sulfate (1C)	2.0	U	10	2.0	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
Endrin (1C)	4.2	U	10	4.2	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
Endrin aldehyde (1C)	2.0	U	10	2.0	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
Endrin ketone (1C)	3.7	U	12	3.7	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
gamma-BHC (Lindane) (1C)	1.3	U	5.1	1.3	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
gamma-Chlordane (1C)	1.5	U	5.1	1.5	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
Heptachlor (1C)	1.9	U	5.1	1.9	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
Heptachlor epoxide (1C)	1.0	U	5.1	1.0	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
Methoxychlor (1C)	11	U	41	11	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
Toxaphene (1C)	86	U	200	86	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
p,p'-DDD (1C)	2.0	U	10	2.0	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
p,p'-DDE (1C)	2.0	U	10	2.0	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5
p,p'-DDT (1C)	4.9	U	10	4.9	ug/Kg	☼	11/21/21 08:48	11/22/21 12:09	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	101		54 - 143	11/21/21 08:48	11/22/21 12:09	5
DCB Decachlorobiphenyl (Surr) (2C)	102		54 - 143	11/21/21 08:48	11/22/21 12:09	5
Tetrachloro-m-xylene (Surr) (1C)	85		20 - 131	11/21/21 08:48	11/22/21 12:09	5
Tetrachloro-m-xylene (Surr) (2C)	100		20 - 131	11/21/21 08:48	11/22/21 12:09	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	6.5	U	21	6.5	ug/Kg	☼	11/21/21 08:48	11/22/21 04:09	1
PCB-1221 (1C)	6.5	U	21	6.5	ug/Kg	☼	11/21/21 08:48	11/22/21 04:09	1
PCB-1232 (1C)	6.5	U	21	6.5	ug/Kg	☼	11/21/21 08:48	11/22/21 04:09	1
PCB-1242 (1C)	6.5	U	21	6.5	ug/Kg	☼	11/21/21 08:48	11/22/21 04:09	1
PCB-1248 (1C)	6.5	U	21	6.5	ug/Kg	☼	11/21/21 08:48	11/22/21 04:09	1
PCB-1254 (1C)	14	J	21	7.9	ug/Kg	☼	11/21/21 08:48	11/22/21 04:09	1
PCB-1260 (2C)	13	J	21	7.9	ug/Kg	☼	11/21/21 08:48	11/22/21 04:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	91		45 - 143	11/21/21 08:48	11/22/21 04:09	1
DCB Decachlorobiphenyl (Surr) (2C)	94		45 - 143	11/21/21 08:48	11/22/21 04:09	1
Tetrachloro-m-xylene (1C)	100		53 - 140	11/21/21 08:48	11/22/21 04:09	1
Tetrachloro-m-xylene (2C)	96		53 - 140	11/21/21 08:48	11/22/21 04:09	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.7	U	5.0	1.7	mg/Kg	☼	11/20/21 13:23	11/24/21 20:37	1
Aluminum	9600		20	11	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1
Arsenic	4.1		3.0	1.4	mg/Kg	☼	11/20/21 13:23	11/24/21 20:37	1
Barium	67		0.50	0.15	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1
Beryllium	0.47	J	0.50	0.10	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1
Cadmium	0.18	J	0.50	0.10	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1
Calcium	2500		50	12	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1
Chromium	15		1.5	0.18	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1
Cobalt	5.2		0.50	0.15	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-13P (6.5-7.0)

Lab Sample ID: 410-63941-3

Date Collected: 11/18/21 08:15

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 80.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	17		2.0	0.77	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1
Iron	12000		20	6.2	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1
Lead	36		1.5	0.60	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1
Magnesium	1400		10	4.0	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1
Manganese	110		1.0	0.52	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1
Nickel	10	^5+	1.0	0.26	mg/Kg	☼	11/20/21 13:23	11/24/21 20:37	1
Potassium	1100		50	20	mg/Kg	☼	11/20/21 13:23	11/24/21 20:37	1
Selenium	2.1	J	5.0	1.5	mg/Kg	☼	11/20/21 13:23	11/24/21 20:37	1
Silver	0.56	J ^5-	1.0	0.40	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1
Sodium	74	J	100	46	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1
Thallium	1.3	U ^5+	3.0	1.3	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1
Zinc	56		2.0	1.0	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1
Vanadium	24		1.0	0.43	mg/Kg	☼	11/20/21 13:23	11/24/21 11:53	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.057	J	0.070	0.029	mg/Kg	☼	11/20/21 13:33	11/22/21 17:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.1		1.0	1.0	%			11/19/21 13:27	1

DRAFT

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (54-135)	BFB (50-131)	DBFM (50-141)	TOL (52-141)
410-63941-1	G1-11 (9.5-10.0)	93	94	97	105
410-63941-2	G1-12 (5.5-6.0)	96	85	100	114
410-63941-3	G1-13P (6.5-7.0)	88	80	103	119
LCS 410-198452/5	Lab Control Sample	103	100	102	99
LCS 410-198452/6	Lab Control Sample Dup	103	99	102	100
MB 410-198452/8	Method Blank	103	99	101	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (45-108)	NBZ (32-97)	2FP (26-96)	FBP (39-100)	TBP (13-121)	PHL (27-104)
410-63941-1	G1-11 (9.5-10.0)	61	3 S1-	5 S1-	6 S1-	22	7 S1-
410-63941-1 - DL	G1-11 (9.5-10.0)	68	3 S1-	6 S1-	6 S1-	25	8 S1-
410-63941-1 - DL2	G1-11 (9.5-10.0)	110 S1+	12 S1-	9 S1-	5 S1-	43	0 S1-
410-63941-2	G1-12 (5.5-6.0)	95	75	77	81	86	78
410-63941-3	G1-13P (6.5-7.0)	94	74	80	83	86	80

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (54-143)	DCB2 (54-143)	TCX1 (20-131)	TCX2 (20-131)
410-63941-1	G1-11 (9.5-10.0)	96	86	136 S1+	102
410-63941-2	G1-12 (5.5-6.0)	72	74	54	78
410-63941-3	G1-13P (6.5-7.0)	101	102	85	100
LCS 410-197229/2-A	Lab Control Sample	88	86	62	64
MB 410-197229/1-A	Method Blank	90	90	71	71

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (45-143)	DCB2 (45-143)	TCX1 (53-140)	TCX2 (53-140)
410-63941-1	G1-11 (9.5-10.0)	84	88	90	65
410-63941-2	G1-12 (5.5-6.0)	80	80	87	76
410-63941-3	G1-13P (6.5-7.0)	91	94	100	96
LCS 410-197228/2-A	Lab Control Sample	97	99	107	108
MB 410-197228/1-A	Method Blank	98	98	103	104

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

DRAFT

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

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

Lab Sample ID: MB 410-198452/8

Matrix: Solid

Analysis Batch: 198452

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Ethylbenzene	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1
Styrene	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1
1,4-Dichlorobenzene	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1
1,2-Dibromoethane	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1
1,2-Dichloroethane	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
4-Methyl-2-pentanone	1.0	U	10	1.0	ug/Kg			11/24/21 11:57	1
Methylcyclohexane	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Toluene	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Chlorobenzene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Cyclohexane	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
1,2,4-Trichlorobenzene	5.0	U	10	5.0	ug/Kg			11/24/21 11:57	1
1,4-Dioxane	37	U	250	37	ug/Kg			11/24/21 11:57	1
Dibromochloromethane	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Tetrachloroethene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
cis-1,2-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
trans-1,2-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Methyl tertiary butyl ether	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
m&p-Xylene	1.0	U	5.0	1.0	ug/Kg			11/24/21 11:57	1
1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Carbon tetrachloride	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
2-Hexanone	1.0	U	10	1.0	ug/Kg			11/24/21 11:57	1
Acetone	6.0	U	20	6.0	ug/Kg			11/24/21 11:57	1
Chloroform	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Benzene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
1,1,1-Trichloroethane	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Bromomethane	0.70	U	5.0	0.70	ug/Kg			11/24/21 11:57	1
Chloromethane	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Bromochloromethane	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Chloroethane	1.0	U	5.0	1.0	ug/Kg			11/24/21 11:57	1
Vinyl chloride	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Methylene Chloride	2.0	U	5.0	2.0	ug/Kg			11/24/21 11:57	1
Carbon disulfide	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Bromoform	5.0	U	10	5.0	ug/Kg			11/24/21 11:57	1
Bromodichloromethane	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1
1,1-Dichloroethane	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
1,1-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Trichlorofluoromethane	0.70	U	5.0	0.70	ug/Kg			11/24/21 11:57	1
Dichlorodifluoromethane	0.60	U	5.0	0.60	ug/Kg			11/24/21 11:57	1
Freon 113	0.60	U	10	0.60	ug/Kg			11/24/21 11:57	1
1,2-Dichloropropane	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
2-Butanone	2.0	U	10	2.0	ug/Kg			11/24/21 11:57	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Trichloroethene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Methyl acetate	1.0	U	5.0	1.0	ug/Kg			11/24/21 11:57	1
1,1,1,2-Tetrachloroethane	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1
1,2,3-Trichlorobenzene	5.0	U	10	5.0	ug/Kg			11/24/21 11:57	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

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

Lab Sample ID: MB 410-198452/8

Matrix: Solid

Analysis Batch: 198452

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1
1,2-Dichlorobenzene	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
1,2-Dibromo-3-Chloropropane	0.50	U	5.0	0.50	ug/Kg			11/24/21 11:57	1
Isopropylbenzene	0.40	U	5.0	0.40	ug/Kg			11/24/21 11:57	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	103		54 - 135		11/24/21 11:57	1
4-Bromofluorobenzene (Surr)	99		50 - 131		11/24/21 11:57	1
Dibromofluoromethane (Surr)	101		50 - 141		11/24/21 11:57	1
Toluene-d8 (Surr)	100		52 - 141		11/24/21 11:57	1

Lab Sample ID: LCS 410-198452/5

Matrix: Solid

Analysis Batch: 198452

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,3-Dichloropropene	20.0	20.0		ug/Kg		100	66 - 120
trans-1,3-Dichloropropene	20.0	20.5		ug/Kg		103	68 - 122
Ethylbenzene	20.0	20.5		ug/Kg		102	78 - 120
Styrene	20.0	20.0		ug/Kg		100	76 - 120
1,4-Dichlorobenzene	20.0	20.1		ug/Kg		101	80 - 120
1,2-Dibromoethane	20.0	19.7		ug/Kg		99	76 - 120
1,2-Dichloroethane	20.0	19.8		ug/Kg		99	71 - 128
4-Methyl-2-pentanone	250	263		ug/Kg		105	67 - 128
Methylcyclohexane	20.0	21.6		ug/Kg		108	61 - 124
Toluene	20.0	20.0		ug/Kg		100	80 - 120
Chlorobenzene	20.0	20.2		ug/Kg		101	80 - 120
Cyclohexane	20.0	21.5		ug/Kg		108	58 - 126
1,2,4-Trichlorobenzene	20.0	20.9		ug/Kg		105	56 - 130
1,4-Dioxane	500	505		ug/Kg		101	62 - 131
Dibromochloromethane	20.0	20.5		ug/Kg		103	69 - 125
Tetrachloroethene	20.0	20.7		ug/Kg		104	73 - 120
cis-1,2-Dichloroethene	20.0	21.3		ug/Kg		106	80 - 125
trans-1,2-Dichloroethene	20.0	20.3		ug/Kg		101	80 - 126
Methyl tertiary butyl ether	20.0	21.2		ug/Kg		106	72 - 120
m&p-Xylene	40.0	40.7		ug/Kg		102	80 - 120
1,3-Dichlorobenzene	20.0	20.0		ug/Kg		100	75 - 120
Carbon tetrachloride	20.0	20.5		ug/Kg		102	64 - 134
2-Hexanone	250	282		ug/Kg		113	54 - 140
Acetone	250	329		ug/Kg		132	41 - 150
Chloroform	20.0	20.0		ug/Kg		100	80 - 120
Benzene	20.0	20.8		ug/Kg		104	80 - 120
1,1,1-Trichloroethane	20.0	20.4		ug/Kg		102	69 - 123
Bromomethane	20.0	19.0		ug/Kg		95	45 - 140
Chloromethane	20.0	19.4		ug/Kg		97	56 - 120
Bromochloromethane	20.0	20.9		ug/Kg		104	72 - 124
Chloroethane	20.0	19.1		ug/Kg		95	43 - 135
Vinyl chloride	20.0	19.2		ug/Kg		96	52 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

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

Lab Sample ID: LCS 410-198452/5

Matrix: Solid

Analysis Batch: 198452

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	20.9		ug/Kg		104	76 - 122
Carbon disulfide	20.0	22.8		ug/Kg		114	64 - 133
Bromoform	20.0	20.7		ug/Kg		104	51 - 127
Bromodichloromethane	20.0	20.6		ug/Kg		103	70 - 120
1,1-Dichloroethane	20.0	20.2		ug/Kg		101	79 - 120
1,1-Dichloroethene	20.0	21.4		ug/Kg		107	73 - 129
Trichlorofluoromethane	20.0	19.8		ug/Kg		99	55 - 134
Dichlorodifluoromethane	20.0	20.1		ug/Kg		100	21 - 127
Freon 113	20.0	23.6		ug/Kg		118	64 - 135
1,2-Dichloropropane	20.0	20.5		ug/Kg		103	80 - 120
2-Butanone	250	268		ug/Kg		107	57 - 128
1,1,2-Trichloroethane	20.0	20.8		ug/Kg		104	80 - 120
Trichloroethene	20.0	20.5		ug/Kg		102	80 - 120
Methyl acetate	20.0	20.8		ug/Kg		104	67 - 128
1,1,1,2-Tetrachloroethane	20.0	20.5		ug/Kg		103	69 - 125
1,2,3-Trichlorobenzene	20.0	21.1		ug/Kg		106	57 - 131
o-Xylene	20.0	20.2		ug/Kg		101	75 - 120
1,2-Dichlorobenzene	20.0	19.9		ug/Kg		100	76 - 120
1,2-Dibromo-3-Chloropropane	20.0	18.8		ug/Kg		94	48 - 134
Isopropylbenzene	20.0	20.7		ug/Kg		103	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		54 - 135
4-Bromofluorobenzene (Surr)	100		50 - 131
Dibromofluoromethane (Surr)	102		50 - 141
Toluene-d8 (Surr)	99		52 - 141

Lab Sample ID: LCSD 410-198452/6

Matrix: Solid

Analysis Batch: 198452

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	20.0	20.2		ug/Kg		101	66 - 120	1	30
trans-1,3-Dichloropropene	20.0	20.5		ug/Kg		103	68 - 122	0	30
Ethylbenzene	20.0	20.7		ug/Kg		104	78 - 120	1	30
Styrene	20.0	20.3		ug/Kg		102	76 - 120	2	30
1,4-Dichlorobenzene	20.0	20.7		ug/Kg		103	80 - 120	3	30
1,2-Dibromoethane	20.0	20.0		ug/Kg		100	76 - 120	1	30
1,2-Dichloroethane	20.0	19.5		ug/Kg		98	71 - 128	1	30
4-Methyl-2-pentanone	250	243		ug/Kg		97	67 - 128	8	30
Methylcyclohexane	20.0	21.2		ug/Kg		106	61 - 124	2	30
Toluene	20.0	20.4		ug/Kg		102	80 - 120	2	30
Chlorobenzene	20.0	20.5		ug/Kg		102	80 - 120	1	30
Cyclohexane	20.0	21.4		ug/Kg		107	58 - 126	1	30
1,2,4-Trichlorobenzene	20.0	21.4		ug/Kg		107	56 - 130	2	30
1,4-Dioxane	500	523		ug/Kg		105	62 - 131	4	30
Dibromochloromethane	20.0	20.3		ug/Kg		102	69 - 125	1	30
Tetrachloroethene	20.0	21.0		ug/Kg		105	73 - 120	1	30

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

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

Lab Sample ID: LCSD 410-198452/6

Matrix: Solid

Analysis Batch: 198452

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Added	Result	Qualifier				Limits		Limit
cis-1,2-Dichloroethene	20.0	21.5		ug/Kg		108	80 - 125	1	30
trans-1,2-Dichloroethene	20.0	20.3		ug/Kg		102	80 - 126	0	30
Methyl tertiary butyl ether	20.0	20.7		ug/Kg		103	72 - 120	2	30
m&p-Xylene	40.0	41.7		ug/Kg		104	80 - 120	3	30
1,3-Dichlorobenzene	20.0	20.5		ug/Kg		102	75 - 120	3	30
Carbon tetrachloride	20.0	20.4		ug/Kg		102	64 - 134	0	30
2-Hexanone	250	256		ug/Kg		102	54 - 140	10	30
Acetone	250	350		ug/Kg		140	41 - 150	6	30
Chloroform	20.0	20.2		ug/Kg		101	80 - 120	1	30
Benzene	20.0	21.0		ug/Kg		105	80 - 120	1	30
1,1,1-Trichloroethane	20.0	20.1		ug/Kg		101	69 - 123	1	30
Bromomethane	20.0	18.6		ug/Kg		93	45 - 140	2	30
Chloromethane	20.0	18.6		ug/Kg		93	56 - 120	4	30
Bromochloromethane	20.0	20.7		ug/Kg		103	72 - 124	1	30
Chloroethane	20.0	19.5		ug/Kg		98	43 - 135	2	30
Vinyl chloride	20.0	18.9		ug/Kg		95	52 - 120	1	30
Methylene Chloride	20.0	20.8		ug/Kg		104	76 - 122	0	30
Carbon disulfide	20.0	23.0		ug/Kg		115	64 - 133	1	30
Bromoform	20.0	20.8		ug/Kg		104	51 - 127	0	30
Bromodichloromethane	20.0	20.4		ug/Kg		102	70 - 120	1	30
1,1-Dichloroethane	20.0	20.5		ug/Kg		102	79 - 120	1	30
1,1-Dichloroethene	20.0	20.9		ug/Kg		104	73 - 129	3	30
Trichlorofluoromethane	20.0	19.6		ug/Kg		98	55 - 134	1	30
Dichlorodifluoromethane	20.0	20.7		ug/Kg		103	21 - 127	3	30
Freon 113	20.0	23.4		ug/Kg		117	64 - 135	0	30
1,2-Dichloropropane	20.0	21.1		ug/Kg		106	80 - 120	3	30
2-Butanone	250	285		ug/Kg		114	57 - 128	6	30
1,1,2-Trichloroethane	20.0	20.6		ug/Kg		103	80 - 120	1	30
Trichloroethene	20.0	20.6		ug/Kg		103	80 - 120	1	30
Methyl acetate	20.0	20.3		ug/Kg		101	67 - 128	2	30
1,1,2,2-Tetrachloroethane	20.0	19.9		ug/Kg		99	69 - 125	3	30
1,2,3-Trichlorobenzene	20.0	21.2		ug/Kg		106	57 - 131	1	30
o-Xylene	20.0	20.6		ug/Kg		103	75 - 120	2	30
1,2-Dichlorobenzene	20.0	20.4		ug/Kg		102	76 - 120	3	30
1,2-Dibromo-3-Chloropropane	20.0	17.8		ug/Kg		89	48 - 134	5	30
Isopropylbenzene	20.0	21.2		ug/Kg		106	77 - 120	2	30

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	103		54 - 135
4-Bromofluorobenzene (Surr)	99		50 - 131
Dibromofluoromethane (Surr)	102		50 - 141
Toluene-d8 (Surr)	100		52 - 141

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-197229/1-A

Matrix: Solid

Analysis Batch: 197474

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 197229

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin (1C)	0.17	U	0.83	0.17	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
alpha-BHC (1C)	0.17	U	0.83	0.17	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
alpha-Chlordane (1C)	0.17	U	0.83	0.17	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
beta-BHC (1C)	0.44	U	1.0	0.44	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
delta-BHC (1C)	0.45	U	1.0	0.45	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
Dieldrin (1C)	0.33	U	1.7	0.33	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
Endosulfan I (1C)	0.22	U	0.83	0.22	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
Endosulfan II (1C)	1.1	U	2.3	1.1	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
Endosulfan sulfate (1C)	0.33	U	1.7	0.33	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
Endrin (1C)	0.68	U	1.7	0.68	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
Endrin aldehyde (1C)	0.33	U	1.7	0.33	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
Endrin ketone (1C)	0.60	U	2.0	0.60	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
gamma-BHC (Lindane) (1C)	0.21	U	0.83	0.21	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
gamma-Chlordane (1C)	0.25	U	0.83	0.25	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
Heptachlor (1C)	0.31	U	0.83	0.31	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
Heptachlor epoxide (1C)	0.17	U	0.83	0.17	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
Methoxychlor (1C)	1.8	U	6.7	1.8	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
Toxaphene (1C)	14	U	33	14	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
p,p'-DDD (1C)	0.33	U	1.7	0.33	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
p,p'-DDE (1C)	0.33	U	1.7	0.33	ug/Kg		11/21/21 08:48	11/22/21 09:29	1
p,p'-DDT (1C)	0.79	U	1.7	0.79	ug/Kg		11/21/21 08:48	11/22/21 09:29	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	90		54 - 143	11/21/21 08:48	11/22/21 09:29	1
DCB Decachlorobiphenyl (Surr) (2C)	90		54 - 143	11/21/21 08:48	11/22/21 09:29	1
Tetrachloro-m-xylene (Surr) (1C)	71		20 - 131	11/21/21 08:48	11/22/21 09:29	1
Tetrachloro-m-xylene (Surr) (2C)	71		20 - 131	11/21/21 08:48	11/22/21 09:29	1

Lab Sample ID: LCS 410-197229/2-A

Matrix: Solid

Analysis Batch: 197474

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 197229

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Aldrin (1C)	3.38	2.90		ug/Kg		86	56 - 134
alpha-BHC (1C)	3.38	2.96		ug/Kg		88	55 - 135
beta-BHC (2C)	3.33	2.94		ug/Kg		88	50 - 132
delta-BHC (1C)	3.33	3.01		ug/Kg		90	47 - 141
Dieldrin (2C)	6.67	5.92		ug/Kg		89	54 - 136
Endosulfan I (1C)	3.38	2.91		ug/Kg		86	51 - 124
Endosulfan II (2C)	6.71	5.97		ug/Kg		89	56 - 125
Endosulfan sulfate (2C)	6.71	5.78		ug/Kg		86	56 - 125
Endrin (1C)	6.67	6.43		ug/Kg		96	56 - 129
Endrin aldehyde (2C)	6.71	4.89		ug/Kg		73	46 - 133
Endrin ketone (1C)	6.67	5.73		ug/Kg		86	55 - 128
gamma-BHC (Lindane) (1C)	3.33	2.90		ug/Kg		87	52 - 138
Heptachlor (1C)	3.38	2.88		ug/Kg		85	52 - 139
Heptachlor epoxide (2C)	3.33	2.98		ug/Kg		90	55 - 133
Methoxychlor (2C)	33.6	30.4		ug/Kg		90	54 - 148

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

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

Lab Sample ID: LCS 410-197229/2-A

Matrix: Solid

Analysis Batch: 197474

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 197229

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
p,p'-DDD (1C)	6.71	6.45		ug/Kg		96	59 - 135
p,p'-DDE (1C)	6.71	6.22		ug/Kg		93	57 - 135
p,p'-DDT (2C)	6.71	6.22		ug/Kg		93	53 - 151

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	88		54 - 143
DCB Decachlorobiphenyl (Surr) (2C)	86		54 - 143
Tetrachloro-m-xylene (Surr) (1C)	62		20 - 131
Tetrachloro-m-xylene (Surr) (2C)	64		20 - 131

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

Lab Sample ID: MB 410-197228/1-A

Matrix: Solid

Analysis Batch: 197374

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 197228

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	5.3	U	17	5.3	ug/Kg		11/21/21 08:48	11/22/21 01:48	1
PCB-1221 (1C)	5.3	U	17	5.3	ug/Kg		11/21/21 08:48	11/22/21 01:48	1
PCB-1232 (1C)	5.3	U	17	5.3	ug/Kg		11/21/21 08:48	11/22/21 01:48	1
PCB-1242 (1C)	5.3	U	17	5.3	ug/Kg		11/21/21 08:48	11/22/21 01:48	1
PCB-1248 (1C)	5.3	U	17	5.3	ug/Kg		11/21/21 08:48	11/22/21 01:48	1
PCB-1254 (1C)	6.4	U	17	6.4	ug/Kg		11/21/21 08:48	11/22/21 01:48	1
PCB-1260 (1C)	6.4	U	17	6.4	ug/Kg		11/21/21 08:48	11/22/21 01:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	98		45 - 143	11/21/21 08:48	11/22/21 01:48	1
DCB Decachlorobiphenyl (Surr) (2C)	98		45 - 143	11/21/21 08:48	11/22/21 01:48	1
Tetrachloro-m-xylene (1C)	103		53 - 140	11/21/21 08:48	11/22/21 01:48	1
Tetrachloro-m-xylene (2C)	104		53 - 140	11/21/21 08:48	11/22/21 01:48	1

Lab Sample ID: LCS 410-197228/2-A

Matrix: Solid

Analysis Batch: 197374

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 197228

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016 (1C)	167	152		ug/Kg		91	68 - 121
PCB-1260 (2C)	168	172		ug/Kg		102	75 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	97		45 - 143
DCB Decachlorobiphenyl (Surr) (2C)	99		45 - 143
Tetrachloro-m-xylene (1C)	107		53 - 140

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

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

Lab Sample ID: LCS 410-197228/2-A
Matrix: Solid
Analysis Batch: 197374

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 197228

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene (2C)	108		53 - 140

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-197181/1-A
Matrix: Solid
Analysis Batch: 198583

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 197181

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	11	U	20	11	mg/Kg		11/20/21 13:23	11/24/21 11:31	1
Arsenic	1.4	U	3.0	1.4	mg/Kg		11/20/21 13:23	11/24/21 11:31	1
Barium	0.15	U	0.50	0.15	mg/Kg		11/20/21 13:23	11/24/21 11:31	1
Beryllium	0.10	U	0.50	0.10	mg/Kg		11/20/21 13:23	11/24/21 11:31	1
Cadmium	0.10	U	0.50	0.10	mg/Kg		11/20/21 13:23	11/24/21 11:31	1
Calcium	12	U	50	12	mg/Kg		11/20/21 13:23	11/24/21 11:31	1
Chromium	0.18	U	1.5	0.18	mg/Kg		11/20/21 13:23	11/24/21 11:31	1
Cobalt	0.15	U	0.50	0.15	mg/Kg		11/20/21 13:23	11/24/21 11:31	1
Copper	0.77	U	2.0	0.77	mg/Kg		11/20/21 13:23	11/24/21 11:31	1
Iron	6.2	U	20	6.2	mg/Kg		11/20/21 13:23	11/24/21 11:31	1
Lead	0.60	U	1.5	0.60	mg/Kg		11/20/21 13:23	11/24/21 11:31	1
Magnesium	4.0	U	10	4.0	mg/Kg		11/20/21 13:23	11/24/21 11:31	1
Manganese	0.52	U	1.0	0.52	mg/Kg		11/20/21 13:23	11/24/21 11:31	1
Silver	0.40	U ^5-	1.0	0.40	mg/Kg		11/20/21 13:23	11/24/21 11:31	1
Sodium	46	U	100	46	mg/Kg		11/20/21 13:23	11/24/21 11:31	1
Zinc	1.0	U	2.0	1.0	mg/Kg		11/20/21 13:23	11/24/21 11:31	1
Vanadium	0.43	U	1.0	0.43	mg/Kg		11/20/21 13:23	11/24/21 11:31	1

Lab Sample ID: MB 410-197181/1-A
Matrix: Solid
Analysis Batch: 198812

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 197181

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	1.7	U	5.0	1.7	mg/Kg		11/20/21 13:23	11/24/21 19:51	1
Nickel	0.26	U ^5+	1.0	0.26	mg/Kg		11/20/21 13:23	11/24/21 19:51	1
Potassium	20	U	50	20	mg/Kg		11/20/21 13:23	11/24/21 19:51	1
Selenium	1.5	U	5.0	1.5	mg/Kg		11/20/21 13:23	11/24/21 19:51	1

Lab Sample ID: MB 410-197181/1-A
Matrix: Solid
Analysis Batch: 199155

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 197181

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Thallium	1.3	U	3.0	1.3	mg/Kg		11/20/21 13:23	11/29/21 11:31	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

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

Lab Sample ID: LCS 410-197181/2-A
Matrix: Solid
Analysis Batch: 198583

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 197181

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Aluminum	500	483		mg/Kg		97	80 - 120	
Arsenic	50.0	48.3		mg/Kg		97	80 - 120	
Barium	50.0	50.8		mg/Kg		102	80 - 120	
Beryllium	5.00	5.12		mg/Kg		102	80 - 120	
Cadmium	5.00	5.07		mg/Kg		102	80 - 120	
Calcium	500	509		mg/Kg		102	80 - 120	
Chromium	50.0	52.0		mg/Kg		104	80 - 120	
Cobalt	50.0	52.6		mg/Kg		105	80 - 120	
Copper	50.0	51.7		mg/Kg		103	80 - 120	
Iron	500	507		mg/Kg		101	80 - 120	
Lead	5.00	5.65		mg/Kg		113	80 - 120	
Magnesium	500	513		mg/Kg		103	80 - 120	
Manganese	50.0	51.9		mg/Kg		104	80 - 120	
Silver	5.00	4.75	^5-	mg/Kg		95	80 - 120	
Sodium	500	490		mg/Kg		98	80 - 120	
Zinc	50.0	49.4		mg/Kg		99	80 - 120	
Vanadium	50.0	51.1		mg/Kg		102	80 - 120	

Lab Sample ID: LCS 410-197181/2-A
Matrix: Solid
Analysis Batch: 198812

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 197181

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Antimony	10.0	10.4		mg/Kg		104	80 - 120	
Nickel	50.0	53.9	^5+	mg/Kg		108	80 - 120	
Potassium	500	511		mg/Kg		102	80 - 120	
Selenium	10.0	10.7		mg/Kg		107	80 - 120	

Lab Sample ID: LCS 410-197181/2-A
Matrix: Solid
Analysis Batch: 199155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 197181

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Thallium	10.0	10.3		mg/Kg		103	80 - 120	

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-197185/1-A
Matrix: Solid
Analysis Batch: 197805

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 197185

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.025	U	0.060	0.025	mg/Kg		11/20/21 13:33	11/22/21 16:29	1

Lab Sample ID: LCS 410-197185/2-A
Matrix: Solid
Analysis Batch: 197805

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 197185

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Mercury	0.167	0.186		mg/Kg		112	80 - 120	

Eurofins Lancaster Laboratories Env, LLC

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

GC/MS VOA

Prep Batch: 196806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-1	G1-11 (9.5-10.0)	Total/NA	Solid	5035	
410-63941-2	G1-12 (5.5-6.0)	Total/NA	Solid	5035	
410-63941-3 - RA	G1-13P (6.5-7.0)	Total/NA	Solid	5035	
410-63941-3	G1-13P (6.5-7.0)	Total/NA	Solid	5035	

Analysis Batch: 198452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-1	G1-11 (9.5-10.0)	Total/NA	Solid	8260C	196806
410-63941-2	G1-12 (5.5-6.0)	Total/NA	Solid	8260C	196806
410-63941-3	G1-13P (6.5-7.0)	Total/NA	Solid	8260C	196806
MB 410-198452/8	Method Blank	Total/NA	Solid	8260C	
LCS 410-198452/5	Lab Control Sample	Total/NA	Solid	8260C	
LCS 410-198452/6	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 199056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-3 - RA	G1-13P (6.5-7.0)	Total/NA	Solid	8260C	196806
MB 410-199056/8	Method Blank	Total/NA	Solid	8260C	
LCS 410-199056/5	Lab Control Sample	Total/NA	Solid	8260C	
LCS 410-199056/6	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 198232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-1	G1-11 (9.5-10.0)	Total/NA	Solid	3546	
410-63941-1 - DL2	G1-11 (9.5-10.0)	Total/NA	Solid	3546	
410-63941-1 - DL	G1-11 (9.5-10.0)	Total/NA	Solid	3546	
410-63941-2	G1-12 (5.5-6.0)	Total/NA	Solid	3546	
410-63941-3	G1-13P (6.5-7.0)	Total/NA	Solid	3546	

Analysis Batch: 198789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-1	G1-11 (9.5-10.0)	Total/NA	Solid	8270D	198232
410-63941-2	G1-12 (5.5-6.0)	Total/NA	Solid	8270D	198232
410-63941-3	G1-13P (6.5-7.0)	Total/NA	Solid	8270D	198232

Analysis Batch: 199010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-1 - DL	G1-11 (9.5-10.0)	Total/NA	Solid	8270D	198232
410-63941-1 - DL2	G1-11 (9.5-10.0)	Total/NA	Solid	8270D	198232

GC Semi VOA

Prep Batch: 197228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-1	G1-11 (9.5-10.0)	Total/NA	Solid	3546	
410-63941-2	G1-12 (5.5-6.0)	Total/NA	Solid	3546	
410-63941-3	G1-13P (6.5-7.0)	Total/NA	Solid	3546	
MB 410-197228/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-197228/2-A	Lab Control Sample	Total/NA	Solid	3546	

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

GC Semi VOA

Prep Batch: 197229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-1	G1-11 (9.5-10.0)	Total/NA	Solid	3546	
410-63941-2	G1-12 (5.5-6.0)	Total/NA	Solid	3546	
410-63941-3	G1-13P (6.5-7.0)	Total/NA	Solid	3546	
MB 410-197229/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-197229/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 197374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-1	G1-11 (9.5-10.0)	Total/NA	Solid	8082A	197228
410-63941-2	G1-12 (5.5-6.0)	Total/NA	Solid	8082A	197228
410-63941-3	G1-13P (6.5-7.0)	Total/NA	Solid	8082A	197228
MB 410-197228/1-A	Method Blank	Total/NA	Solid	8082A	197228
LCS 410-197228/2-A	Lab Control Sample	Total/NA	Solid	8082A	197228

Analysis Batch: 197474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-1	G1-11 (9.5-10.0)	Total/NA	Solid	8081B	197229
410-63941-2	G1-12 (5.5-6.0)	Total/NA	Solid	8081B	197229
410-63941-3	G1-13P (6.5-7.0)	Total/NA	Solid	8081B	197229
MB 410-197229/1-A	Method Blank	Total/NA	Solid	8081B	197229
LCS 410-197229/2-A	Lab Control Sample	Total/NA	Solid	8081B	197229

Metals

Prep Batch: 197181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-1	G1-11 (9.5-10.0)	Total/NA	Solid	3050B	
410-63941-2	G1-12 (5.5-6.0)	Total/NA	Solid	3050B	
410-63941-3	G1-13P (6.5-7.0)	Total/NA	Solid	3050B	
MB 410-197181/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-197181/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 197185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-1	G1-11 (9.5-10.0)	Total/NA	Solid	7471B	
410-63941-2	G1-12 (5.5-6.0)	Total/NA	Solid	7471B	
410-63941-3	G1-13P (6.5-7.0)	Total/NA	Solid	7471B	
MB 410-197185/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-197185/2-A	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 197805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-1	G1-11 (9.5-10.0)	Total/NA	Solid	7471B	197185
410-63941-2	G1-12 (5.5-6.0)	Total/NA	Solid	7471B	197185
410-63941-3	G1-13P (6.5-7.0)	Total/NA	Solid	7471B	197185
MB 410-197185/1-A	Method Blank	Total/NA	Solid	7471B	197185
LCS 410-197185/2-A	Lab Control Sample	Total/NA	Solid	7471B	197185

Analysis Batch: 198583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-1	G1-11 (9.5-10.0)	Total/NA	Solid	6010D	197181

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Metals (Continued)

Analysis Batch: 198583 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-2	G1-12 (5.5-6.0)	Total/NA	Solid	6010D	197181
410-63941-3	G1-13P (6.5-7.0)	Total/NA	Solid	6010D	197181
MB 410-197181/1-A	Method Blank	Total/NA	Solid	6010D	197181
LCS 410-197181/2-A	Lab Control Sample	Total/NA	Solid	6010D	197181

Analysis Batch: 198812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-1	G1-11 (9.5-10.0)	Total/NA	Solid	6010D	197181
410-63941-1	G1-11 (9.5-10.0)	Total/NA	Solid	6010D	197181
410-63941-2	G1-12 (5.5-6.0)	Total/NA	Solid	6010D	197181
410-63941-2	G1-12 (5.5-6.0)	Total/NA	Solid	6010D	197181
410-63941-3	G1-13P (6.5-7.0)	Total/NA	Solid	6010D	197181
MB 410-197181/1-A	Method Blank	Total/NA	Solid	6010D	197181
LCS 410-197181/2-A	Lab Control Sample	Total/NA	Solid	6010D	197181

Analysis Batch: 199155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-1	G1-11 (9.5-10.0)	Total/NA	Solid	6010D	197181
410-63941-2	G1-12 (5.5-6.0)	Total/NA	Solid	6010D	197181
MB 410-197181/1-A	Method Blank	Total/NA	Solid	6010D	197181
LCS 410-197181/2-A	Lab Control Sample	Total/NA	Solid	6010D	197181

General Chemistry

Analysis Batch: 196929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-63941-1	G1-11 (9.5-10.0)	Total/NA	Solid	Moisture	
410-63941-2	G1-12 (5.5-6.0)	Total/NA	Solid	Moisture	
410-63941-3	G1-13P (6.5-7.0)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-11 (9.5-10.0)

Lab Sample ID: 410-63941-1

Date Collected: 11/18/21 11:35

Matrix: Solid

Date Received: 11/18/21 17:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	196929	11/19/21 13:27	UGCW	ELLE

Client Sample ID: G1-11 (9.5-10.0)

Lab Sample ID: 410-63941-1

Date Collected: 11/18/21 11:35

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 75.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			196806	11/19/21 09:43	JJT8	ELLE
Total/NA	Analysis	8260C		1	198452	11/24/21 14:01	UCB5	ELLE
Total/NA	Prep	3546			198232	11/23/21 19:25	QQ3P	ELLE
Total/NA	Analysis	8270D		1	198789	11/25/21 01:41	W6XI	ELLE
Total/NA	Prep	3546	DL		198232	11/23/21 19:25	QQ3P	ELLE
Total/NA	Analysis	8270D	DL	5	199010	11/29/21 13:44	SJ89	ELLE
Total/NA	Prep	3546	DL2		198232	11/23/21 19:25	QQ3P	ELLE
Total/NA	Analysis	8270D	DL2	250	199010	11/29/21 16:45	SJ89	ELLE
Total/NA	Prep	3546			197229	11/21/21 08:48	U9KU	ELLE
Total/NA	Analysis	8081B		100	197474	11/22/21 11:29	WN7O	ELLE
Total/NA	Prep	3546			197228	11/21/21 08:48	U9KU	ELLE
Total/NA	Analysis	8082A		1	197374	11/22/21 03:10	JC94	ELLE
Total/NA	Prep	3050B			197181	11/20/21 13:23	UAMX	ELLE
Total/NA	Analysis	6010D		1	198583	11/24/21 11:41	WJM9	ELLE
Total/NA	Prep	3050B			197181	11/20/21 13:23	UAMX	ELLE
Total/NA	Analysis	6010D		1	199155	11/29/21 11:37	WJM9	ELLE
Total/NA	Prep	3050B			197181	11/20/21 13:23	UAMX	ELLE
Total/NA	Analysis	6010D		1	198812	11/24/21 19:58	T8CQ	ELLE
Total/NA	Prep	3050B			197181	11/20/21 13:23	UAMX	ELLE
Total/NA	Analysis	6010D		10	198812	11/24/21 20:01	T8CQ	ELLE
Total/NA	Prep	7471B			197185	11/20/21 13:33	UAMX	ELLE
Total/NA	Analysis	7471B		10	197805	11/22/21 17:16	UEFS	ELLE

Client Sample ID: G1-12 (5.5-6.0)

Lab Sample ID: 410-63941-2

Date Collected: 11/18/21 10:10

Matrix: Solid

Date Received: 11/18/21 17:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	196929	11/19/21 13:27	UGCW	ELLE

Client Sample ID: G1-12 (5.5-6.0)

Lab Sample ID: 410-63941-2

Date Collected: 11/18/21 10:10

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 80.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			196806	11/19/21 09:43	JJT8	ELLE
Total/NA	Analysis	8260C		1	198452	11/24/21 14:23	UCB5	ELLE

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Client Sample ID: G1-12 (5.5-6.0)

Lab Sample ID: 410-63941-2

Date Collected: 11/18/21 10:10

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 80.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			198232	11/23/21 19:25	QQ3P	ELLE
Total/NA	Analysis	8270D		1	198789	11/25/21 02:06	W6XI	ELLE
Total/NA	Prep	3546			197229	11/21/21 08:48	U9KU	ELLE
Total/NA	Analysis	8081B		5	197474	11/22/21 11:49	WN7O	ELLE
Total/NA	Prep	3546			197228	11/21/21 08:48	U9KU	ELLE
Total/NA	Analysis	8082A		1	197374	11/22/21 03:22	JC94	ELLE
Total/NA	Prep	3050B			197181	11/20/21 13:23	UAMX	ELLE
Total/NA	Analysis	6010D		1	198583	11/24/21 11:44	WJM9	ELLE
Total/NA	Prep	3050B			197181	11/20/21 13:23	UAMX	ELLE
Total/NA	Analysis	6010D		1	199155	11/29/21 11:40	WJM9	ELLE
Total/NA	Prep	3050B			197181	11/20/21 13:23	UAMX	ELLE
Total/NA	Analysis	6010D		1	198812	11/24/21 20:04	T8CQ	ELLE
Total/NA	Prep	3050B			197181	11/20/21 13:23	UAMX	ELLE
Total/NA	Analysis	6010D		10	198812	11/24/21 20:27	T8CQ	ELLE
Total/NA	Prep	7471B			197185	11/20/21 13:33	UAMX	ELLE
Total/NA	Analysis	7471B		1	197805	11/22/21 17:19	UEFS	ELLE

Client Sample ID: G1-13P (6.5-7.0)

Lab Sample ID: 410-63941-3

Date Collected: 11/18/21 08:15

Matrix: Solid

Date Received: 11/18/21 17:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	196929	11/19/21 13:27	UGCW	ELLE

Client Sample ID: G1-13P (6.5-7.0)

Lab Sample ID: 410-63941-3

Date Collected: 11/18/21 08:15

Matrix: Solid

Date Received: 11/18/21 17:27

Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			196806	11/19/21 09:43	JJT8	ELLE
Total/NA	Analysis	8260C		1	198452	11/24/21 14:46	UCB5	ELLE
Total/NA	Prep	5035	RA		196806	11/19/21 09:43	JJT8	ELLE
Total/NA	Analysis	8260C	RA	1	199056	11/29/21 18:12	FXN6	ELLE
Total/NA	Prep	3546			198232	11/23/21 19:25	QQ3P	ELLE
Total/NA	Analysis	8270D		1	198789	11/25/21 02:31	W6XI	ELLE
Total/NA	Prep	3546			197229	11/21/21 08:48	U9KU	ELLE
Total/NA	Analysis	8081B		5	197474	11/22/21 12:09	WN7O	ELLE
Total/NA	Prep	3546			197228	11/21/21 08:48	U9KU	ELLE
Total/NA	Analysis	8082A		1	197374	11/22/21 04:09	JC94	ELLE
Total/NA	Prep	3050B			197181	11/20/21 13:23	UAMX	ELLE
Total/NA	Analysis	6010D		1	198583	11/24/21 11:53	WJM9	ELLE
Total/NA	Prep	3050B			197181	11/20/21 13:23	UAMX	ELLE
Total/NA	Analysis	6010D		1	198812	11/24/21 20:37	T8CQ	ELLE
Total/NA	Prep	7471B			197185	11/20/21 13:33	UAMX	ELLE
Total/NA	Analysis	7471B		1	197805	11/22/21 17:25	UEFS	ELLE

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22

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
8260C	5035	Solid	m&p-Xylene
8260C	5035	Solid	o-Xylene
Moisture		Solid	Percent Moisture

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Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
6010D	Metals (ICP)	SW846	ELLE
7471B	Mercury (CVAA)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
7471B	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-63941-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-63941-1	G1-11 (9.5-10.0)	Solid	11/18/21 11:35	11/18/21 17:27
410-63941-2	G1-12 (5.5-6.0)	Solid	11/18/21 10:10	11/18/21 17:27
410-63941-3	G1-13P (6.5-7.0)	Solid	11/18/21 08:15	11/18/21 17:27

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>> Sele

#/N/A
#/N/A
#/N/A
##



410-63941 Chain of Custody

Chain of Custody Record



Regulatory Program: DW NPDES RCRA Other: VA DEP

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Project Manager: Ashly Sweney

COC No: 1 of 1 COCs

Client Contact		Email: ASWENY@rox.com		Site Contact:		Date: 11/18/21	
Your Company Name here: ROUX ASSOCIATES INC		Tel/Fax:		Lab Contact:		Carrier:	
Address: 402 HURON DRIVE		Analysis Turnaround Time		Filtered Sample (Y/N) Perform MS/MSD (Y/N) TCL VOCs TCL SVOCs PESTICIDES HALOMETALS PCBs MERCURY		TALS Project #:	
City/State/Zip: LOGAN TWP. NJ 08085		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS				Sampler:	
(xxx) xxx-xxxx Phone: 973-423-8800		TAT if different from Below				For Lab Use Only:	
(xxx) xxx-xxxx FAX		<input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				Walk-in Client:	
Project Name: WATER - Alexandria						Lab Sampling:	
Site: Alexandria, VA						Job / SDG No.:	
P O #							

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	TCL VOCs	TCL SVOCs	PESTICIDES	HALOMETALS	PCBs	MERCURY	Sample Specific Notes:
G1-11 (9.5-10.0)	11/18/21	11:35	G	Soil	6			XX	XX	XX	XX			
G1-12 (5.5-6.0)	11/18/21	10:10	G	Soil	6			XX	XX	XX	XX			
G1-13P (6.5-7.0)	11/18/21	08:15	G	Soil	6			XX	XX	XX	XX			

Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: Yes No

Custody Seal No.: _____ Cooler Temp. (°C): Obs'd: 3.9 Corr'd: 4.2 Therm ID No.: 60WS

Relinquished by: <i>[Signature]</i>	Company: ROUX	Date/Time: 11/18/21	Received by: <i>[Signature]</i>	Company: TESTARANT	Date/Time: 11/18/21 12:15
Relinquished by: <i>[Signature]</i>	Company: _____	Date/Time: _____	Received by: <i>[Signature]</i>	Company: _____	Date/Time: 11/18/21 14:32
Relinquished by: <i>[Signature]</i>	Company: _____	Date/Time: 11/18/21 17:07	Received in Laboratory by: <i>[Signature]</i>	Company: EUT	Date/Time: 11-18-21 17:27



Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-63941-1

Login Number: 63941

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Jeremiah, Cory T

Question	Answer	Comment
The cooler's custody seal is 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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-65020-1
Client Project/Site: Mueser - Alexandria, VA

For:

Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
12/9/2021 4:45:07 PM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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A handwritten signature in cursive script that reads "Kelly Tessier".

Kelly Tessier
Project Manager
12/9/2021 4:45:07 PM



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Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
POS	Positive / Present
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

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Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Job ID: 410-65020-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-65020-1

Receipt

The samples were received on 11/30/2021 11:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C

Receipt Exceptions

A trip blank was not submitted for analysis with this sample shipment; and was not listed on the Chain of Custody (COC).

GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-201416 recovered outside acceptance criteria, low biased, for Freon 113 and 1,2,3-Trichlorobenzene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The continuing calibration verification (CCV) analyzed on 410-201416 is compliant under 8260C/D method criteria for 1,2,4-Trichlorobenzene. The software does not display the % Drift data to the whole number as is listed in the method (i.e. limit of 20%). When applying the evaluation to a whole number, the check passes the criteria with a value of 20% Drift.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-201416 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

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

GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 410-201628 was below the method criteria for the following analyte(s): 2,4-Dinitrophenol, 2-Chloronaphthalene, 2,2'-oxybis[1-chloropropane], 2,4-Dimethylphenol, 2-Nitrophenol, 2-Methylphenol, 4-Nitrophenol, Isophorone and N-Nitrosodi-n-propylamine. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

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

Pesticides

Method 8081B: The continuing calibration verification (CCV) associated with batch 410-201019 recovered above the upper control limit for Endrin ketone, Methoxychlor and p,p'-DDT. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: BH-20 (410-65020-1), PS-04 (410-65020-2), BH-10 (410-65020-3) and BH-12 (410-65020-4).

Method 8081B: The method blank for preparation batch 410-201063 contained beta-BHC above the method detection limit (MDL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

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

Metals

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.

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-20

Lab Sample ID: 410-65020-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.6	J cn	20	0.70	ug/L	1		8260C	Total/NA
Chloroform	0.40	J cn	1.0	0.30	ug/L	1		8260C	Total/NA
Aluminum	0.18	J	0.30	0.15	mg/L	1		6010D	Total Recoverable
Barium	0.036		0.0050	0.0010	mg/L	1		6010D	Total Recoverable
Calcium	37		0.50	0.096	mg/L	1		6010D	Total Recoverable
Iron	0.38		0.20	0.040	mg/L	1		6010D	Total Recoverable
Magnesium	9.3		0.10	0.040	mg/L	1		6010D	Total Recoverable
Manganese	0.042		0.010	0.0030	mg/L	1		6010D	Total Recoverable
Potassium	3.2		0.50	0.20	mg/L	1		6010D	Total Recoverable
Sodium	14		1.0	0.24	mg/L	1		6010D	Total Recoverable
Barium	0.036		0.0052	0.0010	mg/L	1		6010D	Dissolved
Calcium	37		0.52	0.099	mg/L	1		6010D	Dissolved
Iron	0.055	J	0.21	0.041	mg/L	1		6010D	Dissolved
Magnesium	9.3	^5-	0.10	0.041	mg/L	1		6010D	Dissolved
Manganese	0.0082	J	0.010	0.0031	mg/L	1		6010D	Dissolved
Potassium	3.3		0.52	0.21	mg/L	1		6010D	Dissolved
Sodium	13		1.0	0.25	mg/L	1		6010D	Dissolved
Total Hardness	150		25	7.5	mg/L	2.5		2340C-2011	Total/NA
Total Organic Carbon	2.3		1.0	0.50	mg/L	1		5310C-2011	Total/NA

Client Sample ID: PS-04

Lab Sample ID: 410-65020-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.2	J cn	20	0.70	ug/L	1		8260C	Total/NA
Chloroform	0.53	J cn	1.0	0.30	ug/L	1		8260C	Total/NA
Aluminum	0.50		0.30	0.15	mg/L	1		6010D	Total Recoverable
Barium	0.040		0.0050	0.0010	mg/L	1		6010D	Total Recoverable
Calcium	38		0.50	0.096	mg/L	1		6010D	Total Recoverable
Iron	0.86		0.20	0.040	mg/L	1		6010D	Total Recoverable
Magnesium	9.5	^5-	0.10	0.040	mg/L	1		6010D	Total Recoverable
Manganese	0.064		0.010	0.0030	mg/L	1		6010D	Total Recoverable
Potassium	3.6		0.50	0.20	mg/L	1		6010D	Total Recoverable
Sodium	15		1.0	0.24	mg/L	1		6010D	Total Recoverable
Zinc	0.0085	J	0.020	0.0037	mg/L	1		6010D	Total Recoverable
Barium	0.037		0.0052	0.0010	mg/L	1		6010D	Dissolved
Calcium	37		0.52	0.099	mg/L	1		6010D	Dissolved
Iron	0.071	J	0.21	0.041	mg/L	1		6010D	Dissolved
Magnesium	9.4	^5-	0.10	0.041	mg/L	1		6010D	Dissolved
Manganese	0.0072	J	0.010	0.0031	mg/L	1		6010D	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: PS-04 (Continued)

Lab Sample ID: 410-65020-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	3.6		0.52	0.21	mg/L	1		6010D	Dissolved
Sodium	15		1.0	0.25	mg/L	1		6010D	Dissolved
Total Hardness	150		25	7.5	mg/L	2.5		2340C-2011	Total/NA
Total Organic Carbon	2.4		1.0	0.50	mg/L	1		5310C-2011	Total/NA

Client Sample ID: BH-10

Lab Sample ID: 410-65020-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	1.6	cn	1.0	0.20	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.34	J cn	1.0	0.30	ug/L	1		8260C	Total/NA
Acetone	1.2	J cn	20	0.70	ug/L	1		8260C	Total/NA
Chloroform	0.72	J cn	1.0	0.30	ug/L	1		8260C	Total/NA
Benzene	0.39	J cn	1.0	0.30	ug/L	1		8260C	Total/NA
Vinyl chloride	0.45	J cn	1.0	0.20	ug/L	1		8260C	Total/NA
o-Xylene	0.40	J cn	1.0	0.40	ug/L	1		8260C	Total/NA
Naphthalene	0.11	J cn	0.51	0.10	ug/L	1		8270D	Total/NA
Aluminum	0.15	J	0.30	0.15	mg/L	1		6010D	Total Recoverable
Barium	0.038		0.0050	0.0010	mg/L	1		6010D	Total Recoverable
Calcium	39		0.50	0.096	mg/L	1		6010D	Total Recoverable
Iron	0.39		0.20	0.040	mg/L	1		6010D	Total Recoverable
Magnesium	9.6		0.10	0.040	mg/L	1		6010D	Total Recoverable
Manganese	0.047		0.010	0.0030	mg/L	1		6010D	Total Recoverable
Potassium	3.6		0.50	0.20	mg/L	1		6010D	Total Recoverable
Sodium	15		1.0	0.24	mg/L	1		6010D	Total Recoverable
Zinc	0.0057	J	0.020	0.0037	mg/L	1		6010D	Total Recoverable
Barium	0.037		0.0052	0.0010	mg/L	1		6010D	Dissolved
Calcium	37		0.52	0.099	mg/L	1		6010D	Dissolved
Iron	0.085	J	0.21	0.041	mg/L	1		6010D	Dissolved
Magnesium	9.4	MS-	0.10	0.041	mg/L	1		6010D	Dissolved
Manganese	0.014		0.010	0.0031	mg/L	1		6010D	Dissolved
Potassium	3.6		0.52	0.21	mg/L	1		6010D	Dissolved
Sodium	14		1.0	0.25	mg/L	1		6010D	Dissolved
Total Hardness	140		25	7.5	mg/L	2.5		2340C-2011	Total/NA
Total Organic Carbon	2.5		1.0	0.50	mg/L	1		5310C-2011	Total/NA

Client Sample ID: BH-12

Lab Sample ID: 410-65020-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.7	J cn	20	0.70	ug/L	1		8260C	Total/NA
Chloroform	0.64	J cn	1.0	0.30	ug/L	1		8260C	Total/NA
Aluminum	1.2		0.30	0.15	mg/L	1		6010D	Total Recoverable
Barium	0.045		0.0050	0.0010	mg/L	1		6010D	Total Recoverable
Calcium	38		0.50	0.096	mg/L	1		6010D	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-12 (Continued)

Lab Sample ID: 410-65020-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	1.9		0.20	0.040	mg/L	1		6010D	Total Recoverable
Magnesium	9.6		0.10	0.040	mg/L	1		6010D	Total Recoverable
Manganese	0.12		0.010	0.0030	mg/L	1		6010D	Total Recoverable
Potassium	4.0		0.50	0.20	mg/L	1		6010D	Total Recoverable
Sodium	16		1.0	0.24	mg/L	1		6010D	Total Recoverable
Zinc	0.012	J	0.020	0.0037	mg/L	1		6010D	Total Recoverable
Vanadium	0.0022	J	0.010	0.0019	mg/L	1		6010D	Total Recoverable
Barium	0.037		0.0052	0.0010	mg/L	1		6010D	Dissolved
Calcium	37		0.52	0.099	mg/L	1		6010D	Dissolved
Iron	0.079	J	0.21	0.041	mg/L	1		6010D	Dissolved
Magnesium	9.4	^5-	0.10	0.041	mg/L	1		6010D	Dissolved
Manganese	0.0049	J	0.010	0.0031	mg/L	1		6010D	Dissolved
Potassium	3.8		0.52	0.21	mg/L	1		6010D	Dissolved
Sodium	16		1.0	0.25	mg/L	1		6010D	Dissolved
Total Hardness	180		25	7.5	mg/L	2.5		2340C-2011	Total/NA
Total Organic Carbon	2.8		1.0	0.50	mg/L	1		5310C-2011	Total/NA

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This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-20

Lab Sample ID: 410-65020-1

Date Collected: 11/29/21 13:30

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/03/21 23:40	1
trans-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/03/21 23:40	1
Ethylbenzene	0.40	U cn	1.0	0.40	ug/L			12/03/21 23:40	1
Styrene	0.30	U cn	5.0	0.30	ug/L			12/03/21 23:40	1
1,4-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/03/21 23:40	1
1,2-Dibromoethane	0.20	U cn	1.0	0.20	ug/L			12/03/21 23:40	1
1,2-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/03/21 23:40	1
4-Methyl-2-pentanone	0.50	U cn	10	0.50	ug/L			12/03/21 23:40	1
Methylcyclohexane	0.50	U cn	5.0	0.50	ug/L			12/03/21 23:40	1
Toluene	0.20	U cn	1.0	0.20	ug/L			12/03/21 23:40	1
Chlorobenzene	0.30	U cn	1.0	0.30	ug/L			12/03/21 23:40	1
Cyclohexane	1.0	U cn	5.0	1.0	ug/L			12/03/21 23:40	1
1,2,4-Trichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/03/21 23:40	1
1,4-Dioxane	29	U cn	250	29	ug/L			12/03/21 23:40	1
Dibromochloromethane	0.20	U cn	1.0	0.20	ug/L			12/03/21 23:40	1
Tetrachloroethene	0.30	U cn	1.0	0.30	ug/L			12/03/21 23:40	1
cis-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/03/21 23:40	1
trans-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/03/21 23:40	1
Methyl tertiary butyl ether	0.20	U cn	1.0	0.20	ug/L			12/03/21 23:40	1
m&p-Xylene	2.0	U cn	5.0	2.0	ug/L			12/03/21 23:40	1
1,3-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/03/21 23:40	1
Carbon tetrachloride	0.30	U cn	1.0	0.30	ug/L			12/03/21 23:40	1
2-Hexanone	0.40	U cn	10	0.40	ug/L			12/03/21 23:40	1
Acetone	1.6	J cn	20	0.70	ug/L			12/03/21 23:40	1
Chloroform	0.40	J cn	1.0	0.30	ug/L			12/03/21 23:40	1
Benzene	0.30	U cn	1.0	0.30	ug/L			12/03/21 23:40	1
1,1,1-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/03/21 23:40	1
Bromomethane	0.30	U cn	1.0	0.30	ug/L			12/03/21 23:40	1
Chloromethane	0.20	U cn	1.0	0.20	ug/L			12/03/21 23:40	1
Bromochloromethane	0.20	U cn	5.0	0.20	ug/L			12/03/21 23:40	1
Chloroethane	0.20	U cn	1.0	0.20	ug/L			12/03/21 23:40	1
Vinyl chloride	0.20	U cn	1.0	0.20	ug/L			12/03/21 23:40	1
Methylene Chloride	0.30	U cn	1.0	0.30	ug/L			12/03/21 23:40	1
Carbon disulfide	0.30	U cn	5.0	0.30	ug/L			12/03/21 23:40	1
Bromoform	1.0	U cn	4.0	1.0	ug/L			12/03/21 23:40	1
Bromodichloromethane	0.20	U cn	1.0	0.20	ug/L			12/03/21 23:40	1
1,1-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/03/21 23:40	1
1,1-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/03/21 23:40	1
Trichlorofluoromethane	0.20	U cn	1.0	0.20	ug/L			12/03/21 23:40	1
Dichlorodifluoromethane	0.20	U cn	1.0	0.20	ug/L			12/03/21 23:40	1
Freon 113	0.30	U cn	10	0.30	ug/L			12/03/21 23:40	1
1,2-Dichloropropane	0.30	U cn	1.0	0.30	ug/L			12/03/21 23:40	1
2-Butanone	0.50	U cn	10	0.50	ug/L			12/03/21 23:40	1
1,1,2-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/03/21 23:40	1
Trichloroethene	0.30	U cn	1.0	0.30	ug/L			12/03/21 23:40	1
Methyl acetate	0.30	U cn	5.0	0.30	ug/L			12/03/21 23:40	1
1,1,2,2-Tetrachloroethane	0.30	U cn	1.0	0.30	ug/L			12/03/21 23:40	1
1,2,3-Trichlorobenzene	0.40	U cn	5.0	0.40	ug/L			12/03/21 23:40	1
o-Xylene	0.40	U cn	1.0	0.40	ug/L			12/03/21 23:40	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-20

Lab Sample ID: 410-65020-1

Date Collected: 11/29/21 13:30

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	0.20	U cn	5.0	0.20	ug/L			12/03/21 23:40	1
1,2-Dibromo-3-Chloropropane	0.30	U cn	5.0	0.30	ug/L			12/03/21 23:40	1
Isopropylbenzene	0.20	U cn	5.0	0.20	ug/L			12/03/21 23:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97	cn	80 - 120					12/03/21 23:40	1
4-Bromofluorobenzene (Surr)	95	cn	80 - 120					12/03/21 23:40	1
Dibromofluoromethane (Surr)	96	cn	80 - 120					12/03/21 23:40	1
Toluene-d8 (Surr)	98	cn	80 - 120					12/03/21 23:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
1,2,4,5-Tetrachlorobenzene	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
2,2'-oxybis[1-chloropropane]	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
2,3,4,6-Tetrachlorophenol	1.0	U cn	5.0	1.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
2,4,5-Trichlorophenol	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
2,4,6-Trichlorophenol	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
2,4-Dichlorophenol	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
2,4-Dimethylphenol	3.0	U cn	10	3.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
2,4-Dinitrophenol	14	U cn	30	14	ug/L		12/03/21 16:30	12/06/21 00:15	1
2,4-Dinitrotoluene	1.0	U cn	5.0	1.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
2,6-Dinitrotoluene	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
2-Chloronaphthalene	0.40	U cn	1.0	0.40	ug/L		12/03/21 16:30	12/06/21 00:15	1
2-Chlorophenol	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
2-Methylnaphthalene	0.10	U cn	0.50	0.10	ug/L		12/03/21 16:30	12/06/21 00:15	1
2-Methylphenol	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
2-Nitroaniline	1.0	U cn	5.0	1.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
2-Nitrophenol	1.0	U cn	5.0	1.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
3,3'-Dichlorobenzidine	4.0	U *+ cn	10	4.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
3-Nitroaniline	2.0	U cn	5.0	2.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
4,6-Dinitro-2-methylphenol	8.1	U cn	21	8.1	ug/L		12/03/21 16:30	12/06/21 00:15	1
4-Bromophenyl-phenylether	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
4-Chloro-3-methylphenol	1.0	U cn	5.0	1.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
4-Methylphenol	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
4-Nitroaniline	0.91	U cn	3.0	0.91	ug/L		12/03/21 16:30	12/06/21 00:15	1
4-Nitrophenol	10	U cn	30	10	ug/L		12/03/21 16:30	12/06/21 00:15	1
Acenaphthene	0.10	U cn	0.50	0.10	ug/L		12/03/21 16:30	12/06/21 00:15	1
Acenaphthylene	0.10	U cn	0.50	0.10	ug/L		12/03/21 16:30	12/06/21 00:15	1
Acetophenone	1.0	U cn	5.0	1.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
Anthracene	0.10	U cn	0.50	0.10	ug/L		12/03/21 16:30	12/06/21 00:15	1
Atrazine	1.0	U *+ cn	5.0	1.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
Benzaldehyde	1.0	U cn	5.0	1.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
Benzo[a]anthracene	0.10	U *+ cn	0.50	0.10	ug/L		12/03/21 16:30	12/06/21 00:15	1
Benzo[a]pyrene	0.11	U cn	0.50	0.11	ug/L		12/03/21 16:30	12/06/21 00:15	1
Benzo[b]fluoranthene	0.10	U cn	0.50	0.10	ug/L		12/03/21 16:30	12/06/21 00:15	1
Benzo[g,h,i]perylene	0.10	U cn	0.50	0.10	ug/L		12/03/21 16:30	12/06/21 00:15	1
Benzo[k]fluoranthene	0.10	U cn	0.50	0.10	ug/L		12/03/21 16:30	12/06/21 00:15	1
Bis(2-chloroethoxy)methane	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
Bis(2-chloroethyl)ether	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-20

Lab Sample ID: 410-65020-1

Date Collected: 11/29/21 13:30

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U ** cn	5.0	2.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
Butylbenzylphthalate	2.0	U cn	5.0	2.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
Caprolactam	3.0	U cn	7.1	3.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
Carbazole	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
Chrysene	0.10	U ** cn	0.50	0.10	ug/L		12/03/21 16:30	12/06/21 00:15	1
Di-n-butyl phthalate	2.0	U cn	5.0	2.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
Di-n-octyl phthalate	5.0	U cn	11	5.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
Dibenz(a,h)anthracene	0.10	U cn	0.50	0.10	ug/L		12/03/21 16:30	12/06/21 00:15	1
Dibenzofuran	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
Diethyl phthalate	2.0	U cn	5.0	2.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
Dimethyl phthalate	2.0	U cn	5.0	2.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
Fluoranthene	0.10	U cn	0.50	0.10	ug/L		12/03/21 16:30	12/06/21 00:15	1
Fluorene	0.12	U cn	0.50	0.12	ug/L		12/03/21 16:30	12/06/21 00:15	1
Hexachlorobenzene	0.11	U cn	0.50	0.11	ug/L		12/03/21 16:30	12/06/21 00:15	1
Hexachlorobutadiene	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
Hexachlorocyclopentadiene	5.0	U cn	11	5.0	ug/L		12/03/21 16:30	12/06/21 00:15	1
Hexachloroethane	0.50	U cn	5.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
Indeno[1,2,3-cd]pyrene	0.11	U cn	0.50	0.11	ug/L		12/03/21 16:30	12/06/21 00:15	1
Isophorone	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
N-Nitrosodi-n-propylamine	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
N-Nitrosodiphenylamine	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
Naphthalene	0.10	U cn	0.50	0.10	ug/L		12/03/21 16:30	12/06/21 00:15	1
Nitrobenzene	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
Phenanthrene	0.11	U cn	0.50	0.11	ug/L		12/03/21 16:30	12/06/21 00:15	1
Phenol	0.50	U cn	2.0	0.50	ug/L		12/03/21 16:30	12/06/21 00:15	1
Pyrene	0.10	U cn	0.50	0.10	ug/L		12/03/21 16:30	12/06/21 00:15	1
Pentachlorophenol	1.0	U cn	5.0	1.0	ug/L		12/03/21 16:30	12/06/21 00:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	70	cn	31 - 119	12/03/21 16:30	12/06/21 00:15	1
Nitrobenzene-d5 (Surr)	86	cn	22 - 117	12/03/21 16:30	12/06/21 00:15	1
2-Fluorophenol (Surr)	43	cn	10 - 78	12/03/21 16:30	12/06/21 00:15	1
2-Fluorobiphenyl (Surr)	68	cn	35 - 100	12/03/21 16:30	12/06/21 00:15	1
2,4,6-Tribromophenol (Surr)	87	cn	10 - 150	12/03/21 16:30	12/06/21 00:15	1
Phenol-d5 (Surr)	38	cn	10 - 67	12/03/21 16:30	12/06/21 00:15	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	0.0021	U cn	0.021	0.0021	ug/L		12/03/21 08:38	12/03/21 15:50	1
alpha-BHC (1C)	0.0031	U cn	0.021	0.0031	ug/L		12/03/21 08:38	12/03/21 15:50	1
alpha-Chlordane (1C)	0.0031	U cn	0.021	0.0031	ug/L		12/03/21 08:38	12/03/21 15:50	1
beta-BHC (2C)	0.0035	U cn	0.021	0.0035	ug/L		12/03/21 08:38	12/03/21 15:50	1
delta-BHC (1C)	0.0035	U cn	0.021	0.0035	ug/L		12/03/21 08:38	12/03/21 15:50	1
Dieldrin (1C)	0.0054	U cn	0.031	0.0054	ug/L		12/03/21 08:38	12/03/21 15:50	1
Endosulfan I (1C)	0.0044	U cn	0.021	0.0044	ug/L		12/03/21 08:38	12/03/21 15:50	1
Endosulfan II (1C)	0.015	U cn	0.041	0.015	ug/L		12/03/21 08:38	12/03/21 15:50	1
Endosulfan sulfate (1C)	0.0059	U cn	0.031	0.0059	ug/L		12/03/21 08:38	12/03/21 15:50	1
Endrin (1C)	0.0083	U cn	0.031	0.0083	ug/L		12/03/21 08:38	12/03/21 15:50	1
Endrin aldehyde (1C)	0.021	U cn	0.10	0.021	ug/L		12/03/21 08:38	12/03/21 15:50	1
Endrin ketone (1C)	0.0051	U cn	0.031	0.0051	ug/L		12/03/21 08:38	12/03/21 15:50	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-20

Lab Sample ID: 410-65020-1

Date Collected: 11/29/21 13:30

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane) (1C)	0.0021	U cn	0.021	0.0021	ug/L		12/03/21 08:38	12/03/21 15:50	1
gamma-Chlordane (1C)	0.0072	U cn	0.041	0.0072	ug/L		12/03/21 08:38	12/03/21 15:50	1
Heptachlor (1C)	0.0021	U cn	0.021	0.0021	ug/L		12/03/21 08:38	12/03/21 15:50	1
Heptachlor epoxide (1C)	0.0024	U cn	0.021	0.0024	ug/L		12/03/21 08:38	12/03/21 15:50	1
Methoxychlor (1C)	0.031	U cn	0.11	0.031	ug/L		12/03/21 08:38	12/03/21 15:50	1
Toxaphene (1C)	0.31	U cn	1.0	0.31	ug/L		12/03/21 08:38	12/03/21 15:50	1
p,p'-DDD (1C)	0.0051	U cn	0.031	0.0051	ug/L		12/03/21 08:38	12/03/21 15:50	1
p,p'-DDE (1C)	0.0051	U cn	0.031	0.0051	ug/L		12/03/21 08:38	12/03/21 15:50	1
p,p'-DDT (1C)	0.0053	U cn	0.031	0.0053	ug/L		12/03/21 08:38	12/03/21 15:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	72	cn	20 - 149	12/03/21 08:38	12/03/21 15:50	1
DCB Decachlorobiphenyl (Surr) (2C)	71	cn	20 - 149	12/03/21 08:38	12/03/21 15:50	1
Tetrachloro-m-xylene (Surr) (1C)	82	cn	20 - 129	12/03/21 08:38	12/03/21 15:50	1
Tetrachloro-m-xylene (Surr) (2C)	83	cn	20 - 129	12/03/21 08:38	12/03/21 15:50	1

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.050	0.016	mg/L		12/02/21 20:18	12/06/21 12:37	1
Aluminum	0.18	J	0.30	0.15	mg/L		12/02/21 20:18	12/06/21 12:37	1
Arsenic	0.016	U	0.050	0.016	mg/L		12/02/21 20:18	12/06/21 12:37	1
Barium	0.036		0.0050	0.0010	mg/L		12/02/21 20:18	12/06/21 12:37	1
Beryllium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:18	12/06/21 12:37	1
Cadmium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:18	12/06/21 12:37	1
Calcium	37		0.50	0.096	mg/L		12/02/21 20:18	12/06/21 12:37	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/02/21 20:18	12/06/21 12:37	1
Cobalt	0.0015	U	0.0050	0.0015	mg/L		12/02/21 20:18	12/06/21 12:37	1
Copper	0.012	U	0.020	0.012	mg/L		12/02/21 20:18	12/06/21 12:37	1
Iron	0.38		0.20	0.040	mg/L		12/02/21 20:18	12/06/21 12:37	1
Lead	0.0071	U	0.015	0.0071	mg/L		12/02/21 20:18	12/06/21 12:37	1
Magnesium	9.3		0.10	0.040	mg/L		12/02/21 20:18	12/06/21 12:37	1
Manganese	0.042		0.010	0.0030	mg/L		12/02/21 20:18	12/06/21 12:37	1
Nickel	0.0021	U	0.010	0.0021	mg/L		12/02/21 20:18	12/06/21 12:37	1
Potassium	3.2		0.50	0.20	mg/L		12/02/21 20:18	12/06/21 12:37	1
Selenium	0.016	U	0.050	0.016	mg/L		12/02/21 20:18	12/06/21 12:37	1
Silver	0.0050	U ^5-	0.010	0.0050	mg/L		12/02/21 20:18	12/06/21 12:37	1
Sodium	14		1.0	0.24	mg/L		12/02/21 20:18	12/06/21 12:37	1
Thallium	0.0081	U	0.030	0.0081	mg/L		12/02/21 20:18	12/08/21 11:37	1
Zinc	0.0037	U	0.020	0.0037	mg/L		12/02/21 20:18	12/06/21 12:37	1
Vanadium	0.0019	U	0.010	0.0019	mg/L		12/02/21 20:18	12/06/21 12:37	1

Method: 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 11:46	1
Aluminum	0.16	U	0.31	0.16	mg/L		12/03/21 10:38	12/08/21 11:46	1
Arsenic	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 11:46	1
Barium	0.036		0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 11:46	1
Beryllium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 11:46	1
Cadmium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 11:46	1
Calcium	37		0.52	0.099	mg/L		12/03/21 10:38	12/08/21 11:46	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-20

Lab Sample ID: 410-65020-1

Date Collected: 11/29/21 13:30

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.0016	U	0.015	0.0016	mg/L		12/03/21 10:38	12/08/21 11:46	1
Cobalt	0.0015	U	0.0052	0.0015	mg/L		12/03/21 10:38	12/08/21 11:46	1
Copper	0.012	U	0.021	0.012	mg/L		12/03/21 10:38	12/08/21 11:46	1
Iron	0.055	J	0.21	0.041	mg/L		12/03/21 10:38	12/08/21 11:46	1
Lead	0.0073	U ^3+	0.015	0.0073	mg/L		12/03/21 10:38	12/08/21 11:46	1
Magnesium	9.3	^5-	0.10	0.041	mg/L		12/03/21 10:38	12/08/21 11:46	1
Manganese	0.0082	J	0.010	0.0031	mg/L		12/03/21 10:38	12/08/21 11:46	1
Nickel	0.0022	U	0.010	0.0022	mg/L		12/03/21 10:38	12/08/21 11:46	1
Potassium	3.3		0.52	0.21	mg/L		12/03/21 10:38	12/08/21 11:46	1
Selenium	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 11:46	1
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/03/21 10:38	12/08/21 11:46	1
Sodium	13		1.0	0.25	mg/L		12/03/21 10:38	12/08/21 11:46	1
Thallium	0.0083	U	0.031	0.0083	mg/L		12/03/21 10:38	12/08/21 15:32	1
Zinc	0.0038	U	0.021	0.0038	mg/L		12/03/21 10:38	12/08/21 11:46	1
Vanadium	0.0020	U	0.010	0.0020	mg/L		12/03/21 10:38	12/08/21 11:46	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/01/21 14:45	12/02/21 00:19	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/03/21 06:31	12/03/21 14:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	150		25	7.5	mg/L			12/02/21 12:50	2.5
Total Organic Carbon	2.3		1.0	0.50	mg/L			12/08/21 21:29	1

Client Sample ID: PS-04

Lab Sample ID: 410-65020-2

Date Collected: 11/29/21 13:55

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:02	1
trans-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:02	1
Ethylbenzene	0.40	U cn	1.0	0.40	ug/L			12/04/21 00:02	1
Styrene	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:02	1
1,4-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:02	1
1,2-Dibromoethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:02	1
1,2-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:02	1
4-Methyl-2-pentanone	0.50	U cn	10	0.50	ug/L			12/04/21 00:02	1
Methylcyclohexane	0.50	U cn	5.0	0.50	ug/L			12/04/21 00:02	1
Toluene	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:02	1
Chlorobenzene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:02	1
Cyclohexane	1.0	U cn	5.0	1.0	ug/L			12/04/21 00:02	1
1,2,4-Trichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:02	1
1,4-Dioxane	29	U cn	250	29	ug/L			12/04/21 00:02	1
Dibromochloromethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:02	1
Tetrachloroethene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:02	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: PS-04

Lab Sample ID: 410-65020-2

Date Collected: 11/29/21 13:55

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:02	1
trans-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:02	1
Methyl tertiary butyl ether	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:02	1
m&p-Xylene	2.0	U cn	5.0	2.0	ug/L			12/04/21 00:02	1
1,3-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:02	1
Carbon tetrachloride	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:02	1
2-Hexanone	0.40	U cn	10	0.40	ug/L			12/04/21 00:02	1
Acetone	1.2	J cn	20	0.70	ug/L			12/04/21 00:02	1
Chloroform	0.53	J cn	1.0	0.30	ug/L			12/04/21 00:02	1
Benzene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:02	1
1,1,1-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:02	1
Bromomethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:02	1
Chloromethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:02	1
Bromochloromethane	0.20	U cn	5.0	0.20	ug/L			12/04/21 00:02	1
Chloroethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:02	1
Vinyl chloride	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:02	1
Methylene Chloride	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:02	1
Carbon disulfide	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:02	1
Bromoform	1.0	U cn	4.0	1.0	ug/L			12/04/21 00:02	1
Bromodichloromethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:02	1
1,1-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:02	1
1,1-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:02	1
Trichlorofluoromethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:02	1
Dichlorodifluoromethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:02	1
Freon 113	0.30	U cn	10	0.30	ug/L			12/04/21 00:02	1
1,2-Dichloropropane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:02	1
2-Butanone	0.50	U cn	10	0.50	ug/L			12/04/21 00:02	1
1,1,2-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:02	1
Trichloroethene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:02	1
Methyl acetate	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:02	1
1,1,2,2-Tetrachloroethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:02	1
1,2,3-Trichlorobenzene	0.40	U cn	5.0	0.40	ug/L			12/04/21 00:02	1
o-Xylene	0.40	U cn	1.0	0.40	ug/L			12/04/21 00:02	1
1,2-Dichlorobenzene	0.20	U cn	5.0	0.20	ug/L			12/04/21 00:02	1
1,2-Dibromo-3-Chloropropane	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:02	1
Isopropylbenzene	0.20	U cn	5.0	0.20	ug/L			12/04/21 00:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98	cn	80 - 120		12/04/21 00:02	1
4-Bromofluorobenzene (Surr)	94	cn	80 - 120		12/04/21 00:02	1
Dibromofluoromethane (Surr)	95	cn	80 - 120		12/04/21 00:02	1
Toluene-d8 (Surr)	98	cn	80 - 120		12/04/21 00:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
1,2,4,5-Tetrachlorobenzene	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
2,2'-oxybis[1-chloropropane]	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
2,3,4,6-Tetrachlorophenol	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 00:42	1
2,4,5-Trichlorophenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: PS-04

Lab Sample ID: 410-65020-2

Date Collected: 11/29/21 13:55

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
2,4-Dichlorophenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
2,4-Dimethylphenol	3.1	U cn	10	3.1	ug/L		12/03/21 16:30	12/06/21 00:42	1
2,4-Dinitrophenol	14	U cn	31	14	ug/L		12/03/21 16:30	12/06/21 00:42	1
2,4-Dinitrotoluene	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 00:42	1
2,6-Dinitrotoluene	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
2-Chloronaphthalene	0.41	U cn	1.0	0.41	ug/L		12/03/21 16:30	12/06/21 00:42	1
2-Chlorophenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
2-Methylnaphthalene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 00:42	1
2-Methylphenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
2-Nitroaniline	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 00:42	1
2-Nitrophenol	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 00:42	1
3,3'-Dichlorobenzidine	4.1	U ** cn	10	4.1	ug/L		12/03/21 16:30	12/06/21 00:42	1
3-Nitroaniline	2.0	U cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 00:42	1
4,6-Dinitro-2-methylphenol	8.2	U cn	21	8.2	ug/L		12/03/21 16:30	12/06/21 00:42	1
4-Bromophenyl-phenylether	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
4-Chloro-3-methylphenol	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 00:42	1
4-Methylphenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
4-Nitroaniline	0.92	U cn	3.1	0.92	ug/L		12/03/21 16:30	12/06/21 00:42	1
4-Nitrophenol	10	U cn	31	10	ug/L		12/03/21 16:30	12/06/21 00:42	1
Acenaphthene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 00:42	1
Acenaphthylene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 00:42	1
Acetophenone	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 00:42	1
Anthracene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 00:42	1
Atrazine	1.0	U ** cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 00:42	1
Benzaldehyde	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 00:42	1
Benzo[a]anthracene	0.10	U ** cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 00:42	1
Benzo[a]pyrene	0.11	U cn	0.51	0.11	ug/L		12/03/21 16:30	12/06/21 00:42	1
Benzo[b]fluoranthene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 00:42	1
Benzo[g,h,i]perylene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 00:42	1
Benzo[k]fluoranthene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 00:42	1
Bis(2-chloroethoxy)methane	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
Bis(2-chloroethyl)ether	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
Bis(2-ethylhexyl) phthalate	2.0	U ** cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 00:42	1
Butylbenzylphthalate	2.0	U cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 00:42	1
Caprolactam	3.1	U cn	7.2	3.1	ug/L		12/03/21 16:30	12/06/21 00:42	1
Carbazole	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
Chrysene	0.10	U ** cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 00:42	1
Di-n-butyl phthalate	2.0	U cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 00:42	1
Di-n-octyl phthalate	5.1	U cn	11	5.1	ug/L		12/03/21 16:30	12/06/21 00:42	1
Dibenz(a,h)anthracene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 00:42	1
Dibenzofuran	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
Diethyl phthalate	2.0	U cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 00:42	1
Dimethyl phthalate	2.0	U cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 00:42	1
Fluoranthene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 00:42	1
Fluorene	0.12	U cn	0.51	0.12	ug/L		12/03/21 16:30	12/06/21 00:42	1
Hexachlorobenzene	0.11	U cn	0.51	0.11	ug/L		12/03/21 16:30	12/06/21 00:42	1
Hexachlorobutadiene	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
Hexachlorocyclopentadiene	5.1	U cn	11	5.1	ug/L		12/03/21 16:30	12/06/21 00:42	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: PS-04

Lab Sample ID: 410-65020-2

Date Collected: 11/29/21 13:55

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachloroethane	0.51	U cn	5.1	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
Indeno[1,2,3-cd]pyrene	0.11	U cn	0.51	0.11	ug/L		12/03/21 16:30	12/06/21 00:42	1
Isophorone	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
N-Nitrosodi-n-propylamine	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
N-Nitrosodiphenylamine	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
Naphthalene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 00:42	1
Nitrobenzene	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
Phenanthrene	0.11	U cn	0.51	0.11	ug/L		12/03/21 16:30	12/06/21 00:42	1
Phenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 00:42	1
Pyrene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 00:42	1
Pentachlorophenol	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 00:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	62	cn	31 - 119	12/03/21 16:30	12/06/21 00:42	1
Nitrobenzene-d5 (Surr)	81	cn	22 - 117	12/03/21 16:30	12/06/21 00:42	1
2-Fluorophenol (Surr)	41	cn	10 - 78	12/03/21 16:30	12/06/21 00:42	1
2-Fluorobiphenyl (Surr)	71	cn	35 - 100	12/03/21 16:30	12/06/21 00:42	1
2,4,6-Tribromophenol (Surr)	80	cn	10 - 150	12/03/21 16:30	12/06/21 00:42	1
Phenol-d5 (Surr)	34	cn	10 - 67	12/03/21 16:30	12/06/21 00:42	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	0.0020	U cn	0.020	0.0020	ug/L		12/03/21 08:38	12/03/21 16:01	1
alpha-BHC (1C)	0.0030	U cn	0.020	0.0030	ug/L		12/03/21 08:38	12/03/21 16:01	1
alpha-Chlordane (1C)	0.0030	U cn	0.020	0.0030	ug/L		12/03/21 08:38	12/03/21 16:01	1
beta-BHC (2C)	0.0034	U cn	0.020	0.0034	ug/L		12/03/21 08:38	12/03/21 16:01	1
delta-BHC (1C)	0.0034	U cn	0.020	0.0034	ug/L		12/03/21 08:38	12/03/21 16:01	1
Dieldrin (1C)	0.0054	U cn	0.030	0.0054	ug/L		12/03/21 08:38	12/03/21 16:01	1
Endosulfan I (1C)	0.0043	U cn	0.020	0.0043	ug/L		12/03/21 08:38	12/03/21 16:01	1
Endosulfan II (1C)	0.015	U cn	0.040	0.015	ug/L		12/03/21 08:38	12/03/21 16:01	1
Endosulfan sulfate (1C)	0.0059	U cn	0.030	0.0059	ug/L		12/03/21 08:38	12/03/21 16:01	1
Endrin (1C)	0.0082	U cn	0.030	0.0082	ug/L		12/03/21 08:38	12/03/21 16:01	1
Endrin aldehyde (1C)	0.020	U cn	0.10	0.020	ug/L		12/03/21 08:38	12/03/21 16:01	1
Endrin ketone (1C)	0.0051	U cn	0.030	0.0051	ug/L		12/03/21 08:38	12/03/21 16:01	1
gamma-BHC (Lindane) (1C)	0.0020	U cn	0.020	0.0020	ug/L		12/03/21 08:38	12/03/21 16:01	1
gamma-Chlordane (1C)	0.0071	U cn	0.040	0.0071	ug/L		12/03/21 08:38	12/03/21 16:01	1
Heptachlor (1C)	0.0020	U cn	0.020	0.0020	ug/L		12/03/21 08:38	12/03/21 16:01	1
Heptachlor epoxide (2C)	0.0023	U cn	0.020	0.0023	ug/L		12/03/21 08:38	12/03/21 16:01	1
Methoxychlor (1C)	0.030	U cn	0.11	0.030	ug/L		12/03/21 08:38	12/03/21 16:01	1
Toxaphene (1C)	0.30	U cn	1.0	0.30	ug/L		12/03/21 08:38	12/03/21 16:01	1
p,p'-DDD (1C)	0.0051	U cn	0.030	0.0051	ug/L		12/03/21 08:38	12/03/21 16:01	1
p,p'-DDE (1C)	0.0051	U cn	0.030	0.0051	ug/L		12/03/21 08:38	12/03/21 16:01	1
p,p'-DDT (1C)	0.0053	U cn	0.030	0.0053	ug/L		12/03/21 08:38	12/03/21 16:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	70	cn	20 - 149	12/03/21 08:38	12/03/21 16:01	1
DCB Decachlorobiphenyl (Surr) (2C)	73	cn	20 - 149	12/03/21 08:38	12/03/21 16:01	1
Tetrachloro-m-xylene (Surr) (1C)	87	cn	20 - 129	12/03/21 08:38	12/03/21 16:01	1
Tetrachloro-m-xylene (Surr) (2C)	89	cn	20 - 129	12/03/21 08:38	12/03/21 16:01	1

Client Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: PS-04

Lab Sample ID: 410-65020-2

Date Collected: 11/29/21 13:55

Matrix: Water

Date Received: 11/30/21 11:15

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.050	0.016	mg/L		12/05/21 10:33	12/07/21 12:24	1
Aluminum	0.50		0.30	0.15	mg/L		12/05/21 10:33	12/07/21 12:24	1
Arsenic	0.016	U	0.050	0.016	mg/L		12/05/21 10:33	12/07/21 12:24	1
Barium	0.040		0.0050	0.0010	mg/L		12/05/21 10:33	12/07/21 12:24	1
Beryllium	0.0010	U	0.0050	0.0010	mg/L		12/05/21 10:33	12/07/21 12:24	1
Cadmium	0.0010	U	0.0050	0.0010	mg/L		12/05/21 10:33	12/07/21 12:24	1
Calcium	38		0.50	0.096	mg/L		12/05/21 10:33	12/07/21 12:24	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/05/21 10:33	12/07/21 12:24	1
Cobalt	0.0015	U	0.0050	0.0015	mg/L		12/05/21 10:33	12/07/21 12:24	1
Copper	0.012	U	0.020	0.012	mg/L		12/05/21 10:33	12/07/21 12:24	1
Iron	0.86		0.20	0.040	mg/L		12/05/21 10:33	12/07/21 12:24	1
Lead	0.0071	U	0.015	0.0071	mg/L		12/05/21 10:33	12/07/21 12:24	1
Magnesium	9.5	^5-	0.10	0.040	mg/L		12/05/21 10:33	12/07/21 12:24	1
Manganese	0.064		0.010	0.0030	mg/L		12/05/21 10:33	12/07/21 12:24	1
Nickel	0.0021	U	0.010	0.0021	mg/L		12/05/21 10:33	12/07/21 12:24	1
Potassium	3.6		0.50	0.20	mg/L		12/05/21 10:33	12/07/21 12:24	1
Selenium	0.016	U	0.050	0.016	mg/L		12/05/21 10:33	12/07/21 12:24	1
Silver	0.0050	U ^5-	0.010	0.0050	mg/L		12/05/21 10:33	12/07/21 12:24	1
Sodium	15		1.0	0.24	mg/L		12/05/21 10:33	12/07/21 12:24	1
Thallium	0.0081	U ^3+	0.030	0.0081	mg/L		12/05/21 10:33	12/08/21 12:25	1
Zinc	0.0085	J	0.020	0.0037	mg/L		12/05/21 10:33	12/07/21 12:24	1
Vanadium	0.0019	U	0.010	0.0019	mg/L		12/05/21 10:33	12/07/21 12:24	1

Method: 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 11:30	1
Aluminum	0.16	U	0.31	0.16	mg/L		12/03/21 10:38	12/08/21 11:30	1
Arsenic	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 11:30	1
Barium	0.037		0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 11:30	1
Beryllium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 11:30	1
Cadmium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 11:30	1
Calcium	37		0.52	0.099	mg/L		12/03/21 10:38	12/08/21 11:30	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/03/21 10:38	12/08/21 11:30	1
Cobalt	0.0015	U	0.0052	0.0015	mg/L		12/03/21 10:38	12/08/21 11:30	1
Copper	0.012	U	0.021	0.012	mg/L		12/03/21 10:38	12/08/21 11:30	1
Iron	0.071	J	0.21	0.041	mg/L		12/03/21 10:38	12/08/21 11:30	1
Lead	0.0073	U ^3+	0.015	0.0073	mg/L		12/03/21 10:38	12/08/21 11:30	1
Magnesium	9.4	^5-	0.10	0.041	mg/L		12/03/21 10:38	12/08/21 11:30	1
Manganese	0.0072	J	0.010	0.0031	mg/L		12/03/21 10:38	12/08/21 11:30	1
Nickel	0.0022	U	0.010	0.0022	mg/L		12/03/21 10:38	12/08/21 11:30	1
Potassium	3.6		0.52	0.21	mg/L		12/03/21 10:38	12/08/21 11:30	1
Selenium	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 11:30	1
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/03/21 10:38	12/08/21 11:30	1
Sodium	15		1.0	0.25	mg/L		12/03/21 10:38	12/08/21 11:30	1
Thallium	0.0083	U	0.031	0.0083	mg/L		12/03/21 10:38	12/08/21 15:22	1
Zinc	0.0038	U	0.021	0.0038	mg/L		12/03/21 10:38	12/08/21 11:30	1
Vanadium	0.0020	U	0.010	0.0020	mg/L		12/03/21 10:38	12/08/21 11:30	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: PS-04

Lab Sample ID: 410-65020-2

Date Collected: 11/29/21 13:55

Matrix: Water

Date Received: 11/30/21 11:15

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/01/21 14:45	12/02/21 00:13	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/03/21 06:31	12/03/21 14:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	150		25	7.5	mg/L			12/02/21 12:58	2.5
Total Organic Carbon	2.4		1.0	0.50	mg/L			12/08/21 22:17	1

Client Sample ID: BH-10

Lab Sample ID: 410-65020-3

Date Collected: 11/29/21 13:10

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:24	1
trans-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:24	1
Ethylbenzene	0.40	U cn	1.0	0.40	ug/L			12/04/21 00:24	1
Styrene	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:24	1
1,4-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:24	1
1,2-Dibromoethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:24	1
1,2-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:24	1
4-Methyl-2-pentanone	0.50	U cn	10	0.50	ug/L			12/04/21 00:24	1
Methylcyclohexane	0.50	U cn	5.0	0.50	ug/L			12/04/21 00:24	1
Toluene	1.6	cn	1.0	0.20	ug/L			12/04/21 00:24	1
Chlorobenzene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:24	1
Cyclohexane	1.0	U cn	5.0	1.0	ug/L			12/04/21 00:24	1
1,2,4-Trichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:24	1
1,4-Dioxane	29	U cn	250	29	ug/L			12/04/21 00:24	1
Dibromochloromethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:24	1
Tetrachloroethene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:24	1
cis-1,2-Dichloroethene	0.34	J cn	1.0	0.30	ug/L			12/04/21 00:24	1
trans-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:24	1
Methyl tertiary butyl ether	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:24	1
m&p-Xylene	2.0	U cn	5.0	2.0	ug/L			12/04/21 00:24	1
1,3-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:24	1
Carbon tetrachloride	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:24	1
2-Hexanone	0.40	U cn	10	0.40	ug/L			12/04/21 00:24	1
Acetone	1.2	J cn	20	0.70	ug/L			12/04/21 00:24	1
Chloroform	0.72	J cn	1.0	0.30	ug/L			12/04/21 00:24	1
Benzene	0.39	J cn	1.0	0.30	ug/L			12/04/21 00:24	1
1,1,1-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:24	1
Bromomethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:24	1
Chloromethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:24	1
Bromochloromethane	0.20	U cn	5.0	0.20	ug/L			12/04/21 00:24	1
Chloroethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:24	1
Vinyl chloride	0.45	J cn	1.0	0.20	ug/L			12/04/21 00:24	1
Methylene Chloride	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:24	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-10

Lab Sample ID: 410-65020-3

Date Collected: 11/29/21 13:10

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:24	1
Bromoform	1.0	U cn	4.0	1.0	ug/L			12/04/21 00:24	1
Bromodichloromethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:24	1
1,1-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:24	1
1,1-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:24	1
Trichlorofluoromethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:24	1
Dichlorodifluoromethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:24	1
Freon 113	0.30	U cn	10	0.30	ug/L			12/04/21 00:24	1
1,2-Dichloropropane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:24	1
2-Butanone	0.50	U cn	10	0.50	ug/L			12/04/21 00:24	1
1,1,2-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:24	1
Trichloroethene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:24	1
Methyl acetate	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:24	1
1,1,2,2-Tetrachloroethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:24	1
1,2,3-Trichlorobenzene	0.40	U cn	5.0	0.40	ug/L			12/04/21 00:24	1
o-Xylene	0.40	J cn	1.0	0.40	ug/L			12/04/21 00:24	1
1,2-Dichlorobenzene	0.20	U cn	5.0	0.20	ug/L			12/04/21 00:24	1
1,2-Dibromo-3-Chloropropane	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:24	1
Isopropylbenzene	0.20	U cn	5.0	0.20	ug/L			12/04/21 00:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98	cn	80 - 120		12/04/21 00:24	1
4-Bromofluorobenzene (Surr)	95	cn	80 - 120		12/04/21 00:24	1
Dibromofluoromethane (Surr)	96	cn	80 - 120		12/04/21 00:24	1
Toluene-d8 (Surr)	99	cn	80 - 120		12/04/21 00:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
1,2,4,5-Tetrachlorobenzene	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
2,2'-oxybis[1-chloropropane]	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
2,3,4,6-Tetrachlorophenol	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
2,4,5-Trichlorophenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
2,4,6-Trichlorophenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
2,4-Dichlorophenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
2,4-Dimethylphenol	3.0	U cn	10	3.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
2,4-Dinitrophenol	14	U cn	30	14	ug/L		12/03/21 16:30	12/06/21 01:10	1
2,4-Dinitrotoluene	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
2,6-Dinitrotoluene	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
2-Chloronaphthalene	0.40	U cn	1.0	0.40	ug/L		12/03/21 16:30	12/06/21 01:10	1
2-Chlorophenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
2-Methylnaphthalene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:10	1
2-Methylphenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
2-Nitroaniline	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
2-Nitrophenol	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
3,3'-Dichlorobenzidine	4.0	U *+ cn	10	4.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
3-Nitroaniline	2.0	U cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
4,6-Dinitro-2-methylphenol	8.1	U cn	21	8.1	ug/L		12/03/21 16:30	12/06/21 01:10	1
4-Bromophenyl-phenylether	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
4-Chloro-3-methylphenol	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:10	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-10

Lab Sample ID: 410-65020-3

Date Collected: 11/29/21 13:10

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methylphenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
4-Nitroaniline	0.91	U cn	3.0	0.91	ug/L		12/03/21 16:30	12/06/21 01:10	1
4-Nitrophenol	10	U cn	30	10	ug/L		12/03/21 16:30	12/06/21 01:10	1
Acenaphthene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:10	1
Acenaphthylene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:10	1
Acetophenone	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
Anthracene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:10	1
Atrazine	1.0	U *+ cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
Benzaldehyde	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
Benzo[a]anthracene	0.10	U *+ cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:10	1
Benzo[a]pyrene	0.11	U cn	0.51	0.11	ug/L		12/03/21 16:30	12/06/21 01:10	1
Benzo[b]fluoranthene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:10	1
Benzo[g,h,i]perylene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:10	1
Benzo[k]fluoranthene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:10	1
Bis(2-chloroethoxy)methane	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
Bis(2-chloroethyl)ether	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
Bis(2-ethylhexyl) phthalate	2.0	U *+ cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
Butylbenzylphthalate	2.0	U cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
Caprolactam	3.0	U cn	7.1	3.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
Carbazole	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
Chrysene	0.10	U *+ cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:10	1
Di-n-butyl phthalate	2.0	U cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
Di-n-octyl phthalate	5.1	U cn	11	5.1	ug/L		12/03/21 16:30	12/06/21 01:10	1
Dibenz(a,h)anthracene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:10	1
Dibenzofuran	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
Diethyl phthalate	2.0	U cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
Dimethyl phthalate	2.0	U cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
Fluoranthene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:10	1
Fluorene	0.12	U cn	0.51	0.12	ug/L		12/03/21 16:30	12/06/21 01:10	1
Hexachlorobenzene	0.11	U cn	0.51	0.11	ug/L		12/03/21 16:30	12/06/21 01:10	1
Hexachlorobutadiene	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
Hexachlorocyclopentadiene	5.1	U cn	11	5.1	ug/L		12/03/21 16:30	12/06/21 01:10	1
Hexachloroethane	0.51	U cn	5.1	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
Indeno[1,2,3-cd]pyrene	0.11	U cn	0.51	0.11	ug/L		12/03/21 16:30	12/06/21 01:10	1
Isophorone	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
N-Nitrosodi-n-propylamine	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
N-Nitrosodiphenylamine	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
Naphthalene	0.11	J cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:10	1
Nitrobenzene	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
Phenanthrene	0.11	U cn	0.51	0.11	ug/L		12/03/21 16:30	12/06/21 01:10	1
Phenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:10	1
Pyrene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:10	1
Pentachlorophenol	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	64	cn	31 - 119				12/03/21 16:30	12/06/21 01:10	1
Nitrobenzene-d5 (Surr)	69	cn	22 - 117				12/03/21 16:30	12/06/21 01:10	1
2-Fluorophenol (Surr)	46	cn	10 - 78				12/03/21 16:30	12/06/21 01:10	1
2-Fluorobiphenyl (Surr)	68	cn	35 - 100				12/03/21 16:30	12/06/21 01:10	1
2,4,6-Tribromophenol (Surr)	85	cn	10 - 150				12/03/21 16:30	12/06/21 01:10	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-10

Lab Sample ID: 410-65020-3

Date Collected: 11/29/21 13:10

Matrix: Water

Date Received: 11/30/21 11:15

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	37	cn	10 - 67	12/03/21 16:30	12/06/21 01:10	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	0.0021	U cn	0.021	0.0021	ug/L		12/03/21 08:38	12/03/21 16:12	1
alpha-BHC (1C)	0.0032	U cn	0.021	0.0032	ug/L		12/03/21 08:38	12/03/21 16:12	1
alpha-Chlordane (1C)	0.0032	U cn	0.021	0.0032	ug/L		12/03/21 08:38	12/03/21 16:12	1
beta-BHC (2C)	0.0036	U cn	0.021	0.0036	ug/L		12/03/21 08:38	12/03/21 16:12	1
delta-BHC (1C)	0.0036	U cn	0.021	0.0036	ug/L		12/03/21 08:38	12/03/21 16:12	1
Dieldrin (1C)	0.0057	U cn	0.032	0.0057	ug/L		12/03/21 08:38	12/03/21 16:12	1
Endosulfan I (1C)	0.0046	U cn	0.021	0.0046	ug/L		12/03/21 08:38	12/03/21 16:12	1
Endosulfan II (1C)	0.016	U cn	0.043	0.016	ug/L		12/03/21 08:38	12/03/21 16:12	1
Endosulfan sulfate (1C)	0.0062	U cn	0.032	0.0062	ug/L		12/03/21 08:38	12/03/21 16:12	1
Endrin (1C)	0.0087	U cn	0.032	0.0087	ug/L		12/03/21 08:38	12/03/21 16:12	1
Endrin aldehyde (1C)	0.021	U cn	0.11	0.021	ug/L		12/03/21 08:38	12/03/21 16:12	1
Endrin ketone (1C)	0.0053	U cn	0.032	0.0053	ug/L		12/03/21 08:38	12/03/21 16:12	1
gamma-BHC (Lindane) (1C)	0.0021	U cn	0.021	0.0021	ug/L		12/03/21 08:38	12/03/21 16:12	1
gamma-Chlordane (1C)	0.0075	U cn	0.043	0.0075	ug/L		12/03/21 08:38	12/03/21 16:12	1
Heptachlor (1C)	0.0021	U cn	0.021	0.0021	ug/L		12/03/21 08:38	12/03/21 16:12	1
Heptachlor epoxide (1C)	0.0025	U cn	0.021	0.0025	ug/L		12/03/21 08:38	12/03/21 16:12	1
Methoxychlor (1C)	0.032	U cn	0.12	0.032	ug/L		12/03/21 08:38	12/03/21 16:12	1
Toxaphene (1C)	0.32	U cn	1.1	0.32	ug/L		12/03/21 08:38	12/03/21 16:12	1
p,p'-DDD (1C)	0.0053	U cn	0.032	0.0053	ug/L		12/03/21 08:38	12/03/21 16:12	1
p,p'-DDE (1C)	0.0053	U cn	0.032	0.0053	ug/L		12/03/21 08:38	12/03/21 16:12	1
p,p'-DDT (1C)	0.0056	U cn	0.032	0.0056	ug/L		12/03/21 08:38	12/03/21 16:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	75	cn	20 - 149	12/03/21 08:38	12/03/21 16:12	1
DCB Decachlorobiphenyl (Surr) (2C)	74	cn	20 - 149	12/03/21 08:38	12/03/21 16:12	1
Tetrachloro-m-xylene (Surr) (1C)	87	cn	20 - 129	12/03/21 08:38	12/03/21 16:12	1
Tetrachloro-m-xylene (Surr) (2C)	86	cn	20 - 129	12/03/21 08:38	12/03/21 16:12	1

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.050	0.016	mg/L		12/02/21 20:18	12/06/21 13:15	1
Aluminum	0.15	J	0.30	0.15	mg/L		12/02/21 20:18	12/06/21 13:15	1
Arsenic	0.016	U	0.050	0.016	mg/L		12/02/21 20:18	12/06/21 13:15	1
Barium	0.038		0.0050	0.0010	mg/L		12/02/21 20:18	12/06/21 13:15	1
Beryllium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:18	12/06/21 13:15	1
Cadmium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:18	12/06/21 13:15	1
Calcium	39		0.50	0.096	mg/L		12/02/21 20:18	12/06/21 13:15	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/02/21 20:18	12/06/21 13:15	1
Cobalt	0.0015	U	0.0050	0.0015	mg/L		12/02/21 20:18	12/06/21 13:15	1
Copper	0.012	U	0.020	0.012	mg/L		12/02/21 20:18	12/06/21 13:15	1
Iron	0.39		0.20	0.040	mg/L		12/02/21 20:18	12/06/21 13:15	1
Lead	0.0071	U	0.015	0.0071	mg/L		12/02/21 20:18	12/06/21 13:15	1
Magnesium	9.6		0.10	0.040	mg/L		12/02/21 20:18	12/06/21 13:15	1
Manganese	0.047		0.010	0.0030	mg/L		12/02/21 20:18	12/06/21 13:15	1
Nickel	0.0021	U	0.010	0.0021	mg/L		12/02/21 20:18	12/06/21 13:15	1
Potassium	3.6		0.50	0.20	mg/L		12/02/21 20:18	12/06/21 13:15	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-10

Lab Sample ID: 410-65020-3

Date Collected: 11/29/21 13:10

Matrix: Water

Date Received: 11/30/21 11:15

Method: 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.016	U	0.050	0.016	mg/L		12/02/21 20:18	12/06/21 13:15	1
Silver	0.0050	U ^5-	0.010	0.0050	mg/L		12/02/21 20:18	12/06/21 13:15	1
Sodium	15		1.0	0.24	mg/L		12/02/21 20:18	12/06/21 13:15	1
Thallium	0.0081	U	0.030	0.0081	mg/L		12/02/21 20:18	12/08/21 11:50	1
Zinc	0.0057	J	0.020	0.0037	mg/L		12/02/21 20:18	12/06/21 13:15	1
Vanadium	0.0019	U	0.010	0.0019	mg/L		12/02/21 20:18	12/06/21 13:15	1

Method: 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 11:43	1
Aluminum	0.16	U	0.31	0.16	mg/L		12/03/21 10:38	12/08/21 11:43	1
Arsenic	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 11:43	1
Barium	0.037		0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 11:43	1
Beryllium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 11:43	1
Cadmium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 11:43	1
Calcium	37		0.52	0.099	mg/L		12/03/21 10:38	12/08/21 11:43	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/03/21 10:38	12/08/21 11:43	1
Cobalt	0.0015	U	0.0052	0.0015	mg/L		12/03/21 10:38	12/08/21 11:43	1
Copper	0.012	U	0.021	0.012	mg/L		12/03/21 10:38	12/08/21 11:43	1
Iron	0.085	J	0.21	0.041	mg/L		12/03/21 10:38	12/08/21 11:43	1
Lead	0.0073	U ^3+	0.015	0.0073	mg/L		12/03/21 10:38	12/08/21 11:43	1
Magnesium	9.4	^5-	0.10	0.041	mg/L		12/03/21 10:38	12/08/21 11:43	1
Manganese	0.014		0.010	0.0031	mg/L		12/03/21 10:38	12/08/21 11:43	1
Nickel	0.0022	U	0.010	0.0022	mg/L		12/03/21 10:38	12/08/21 11:43	1
Potassium	3.6		0.52	0.21	mg/L		12/03/21 10:38	12/08/21 11:43	1
Selenium	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 11:43	1
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/03/21 10:38	12/08/21 11:43	1
Sodium	14		1.0	0.25	mg/L		12/03/21 10:38	12/08/21 11:43	1
Thallium	0.0083	U	0.031	0.0083	mg/L		12/03/21 10:38	12/08/21 15:29	1
Zinc	0.0038	U	0.021	0.0038	mg/L		12/03/21 10:38	12/08/21 11:43	1
Vanadium	0.0020	U	0.010	0.0020	mg/L		12/03/21 10:38	12/08/21 11:43	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/01/21 14:45	12/02/21 00:15	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/03/21 06:31	12/03/21 14:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	140		25	7.5	mg/L			12/02/21 13:05	2.5
Total Organic Carbon	2.5		1.0	0.50	mg/L			12/08/21 22:33	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-12

Lab Sample ID: 410-65020-4

Date Collected: 11/29/21 12:35

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:46	1
trans-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:46	1
Ethylbenzene	0.40	U cn	1.0	0.40	ug/L			12/04/21 00:46	1
Styrene	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:46	1
1,4-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:46	1
1,2-Dibromoethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:46	1
1,2-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:46	1
4-Methyl-2-pentanone	0.50	U cn	10	0.50	ug/L			12/04/21 00:46	1
Methylcyclohexane	0.50	U cn	5.0	0.50	ug/L			12/04/21 00:46	1
Toluene	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:46	1
Chlorobenzene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:46	1
Cyclohexane	1.0	U cn	5.0	1.0	ug/L			12/04/21 00:46	1
1,2,4-Trichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:46	1
1,4-Dioxane	29	U cn	250	29	ug/L			12/04/21 00:46	1
Dibromochloromethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:46	1
Tetrachloroethene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:46	1
cis-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:46	1
trans-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:46	1
Methyl tertiary butyl ether	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:46	1
m&p-Xylene	2.0	U cn	5.0	2.0	ug/L			12/04/21 00:46	1
1,3-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:46	1
Carbon tetrachloride	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:46	1
2-Hexanone	0.40	U cn	10	0.40	ug/L			12/04/21 00:46	1
Acetone	1.7	J cn	20	0.70	ug/L			12/04/21 00:46	1
Chloroform	0.64	J cn	1.0	0.30	ug/L			12/04/21 00:46	1
Benzene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:46	1
1,1,1-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:46	1
Bromomethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:46	1
Chloromethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:46	1
Bromochloromethane	0.20	U cn	5.0	0.20	ug/L			12/04/21 00:46	1
Chloroethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:46	1
Vinyl chloride	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:46	1
Methylene Chloride	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:46	1
Carbon disulfide	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:46	1
Bromoform	1.0	U cn	4.0	1.0	ug/L			12/04/21 00:46	1
Bromodichloromethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:46	1
1,1-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:46	1
1,1-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:46	1
Trichlorofluoromethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:46	1
Dichlorodifluoromethane	0.20	U cn	1.0	0.20	ug/L			12/04/21 00:46	1
Freon 113	0.30	U cn	10	0.30	ug/L			12/04/21 00:46	1
1,2-Dichloropropane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:46	1
2-Butanone	0.50	U cn	10	0.50	ug/L			12/04/21 00:46	1
1,1,2-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:46	1
Trichloroethene	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:46	1
Methyl acetate	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:46	1
1,1,2,2-Tetrachloroethane	0.30	U cn	1.0	0.30	ug/L			12/04/21 00:46	1
1,2,3-Trichlorobenzene	0.40	U cn	5.0	0.40	ug/L			12/04/21 00:46	1
o-Xylene	0.40	U cn	1.0	0.40	ug/L			12/04/21 00:46	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-12

Lab Sample ID: 410-65020-4

Date Collected: 11/29/21 12:35

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	0.20	U cn	5.0	0.20	ug/L			12/04/21 00:46	1
1,2-Dibromo-3-Chloropropane	0.30	U cn	5.0	0.30	ug/L			12/04/21 00:46	1
Isopropylbenzene	0.20	U cn	5.0	0.20	ug/L			12/04/21 00:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98	cn	80 - 120					12/04/21 00:46	1
4-Bromofluorobenzene (Surr)	94	cn	80 - 120					12/04/21 00:46	1
Dibromofluoromethane (Surr)	97	cn	80 - 120					12/04/21 00:46	1
Toluene-d8 (Surr)	98	cn	80 - 120					12/04/21 00:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
1,2,4,5-Tetrachlorobenzene	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
2,2'-oxybis[1-chloropropane]	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
2,3,4,6-Tetrachlorophenol	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
2,4,5-Trichlorophenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
2,4,6-Trichlorophenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
2,4-Dichlorophenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
2,4-Dimethylphenol	3.0	U cn	10	3.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
2,4-Dinitrophenol	14	U cn	30	14	ug/L		12/03/21 16:30	12/06/21 01:37	1
2,4-Dinitrotoluene	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
2,6-Dinitrotoluene	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
2-Chloronaphthalene	0.40	U cn	1.0	0.40	ug/L		12/03/21 16:30	12/06/21 01:37	1
2-Chlorophenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
2-Methylnaphthalene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:37	1
2-Methylphenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
2-Nitroaniline	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
2-Nitrophenol	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
3,3'-Dichlorobenzidine	4.0	U *+ cn	10	4.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
3-Nitroaniline	2.0	U cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
4,6-Dinitro-2-methylphenol	8.1	U cn	21	8.1	ug/L		12/03/21 16:30	12/06/21 01:37	1
4-Bromophenyl-phenylether	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
4-Chloro-3-methylphenol	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
4-Methylphenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
4-Nitroaniline	0.91	U cn	3.0	0.91	ug/L		12/03/21 16:30	12/06/21 01:37	1
4-Nitrophenol	10	U cn	30	10	ug/L		12/03/21 16:30	12/06/21 01:37	1
Acenaphthene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:37	1
Acenaphthylene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:37	1
Acetophenone	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
Anthracene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:37	1
Atrazine	1.0	U *+ cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
Benzaldehyde	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
Benzo[a]anthracene	0.10	U *+ cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:37	1
Benzo[a]pyrene	0.11	U cn	0.51	0.11	ug/L		12/03/21 16:30	12/06/21 01:37	1
Benzo[b]fluoranthene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:37	1
Benzo[g,h,i]perylene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:37	1
Benzo[k]fluoranthene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:37	1
Bis(2-chloroethoxy)methane	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
Bis(2-chloroethyl)ether	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-12

Lab Sample ID: 410-65020-4

Date Collected: 11/29/21 12:35

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U ++ cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
Butylbenzylphthalate	2.0	U cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
Caprolactam	3.0	U cn	7.1	3.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
Carbazole	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
Chrysene	0.10	U ++ cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:37	1
Di-n-butyl phthalate	2.0	U cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
Di-n-octyl phthalate	5.1	U cn	11	5.1	ug/L		12/03/21 16:30	12/06/21 01:37	1
Dibenz(a,h)anthracene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:37	1
Dibenzofuran	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
Diethyl phthalate	2.0	U cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
Dimethyl phthalate	2.0	U cn	5.1	2.0	ug/L		12/03/21 16:30	12/06/21 01:37	1
Fluoranthene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:37	1
Fluorene	0.12	U cn	0.51	0.12	ug/L		12/03/21 16:30	12/06/21 01:37	1
Hexachlorobenzene	0.11	U cn	0.51	0.11	ug/L		12/03/21 16:30	12/06/21 01:37	1
Hexachlorobutadiene	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
Hexachlorocyclopentadiene	5.1	U cn	11	5.1	ug/L		12/03/21 16:30	12/06/21 01:37	1
Hexachloroethane	0.51	U cn	5.1	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
Indeno[1,2,3-cd]pyrene	0.11	U cn	0.51	0.11	ug/L		12/03/21 16:30	12/06/21 01:37	1
Isophorone	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
N-Nitrosodi-n-propylamine	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
N-Nitrosodiphenylamine	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
Naphthalene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:37	1
Nitrobenzene	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
Phenanthrene	0.11	U cn	0.51	0.11	ug/L		12/03/21 16:30	12/06/21 01:37	1
Phenol	0.51	U cn	2.0	0.51	ug/L		12/03/21 16:30	12/06/21 01:37	1
Pyrene	0.10	U cn	0.51	0.10	ug/L		12/03/21 16:30	12/06/21 01:37	1
Pentachlorophenol	1.0	U cn	5.1	1.0	ug/L		12/03/21 16:30	12/06/21 01:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	70	cn	31 - 119	12/03/21 16:30	12/06/21 01:37	1
Nitrobenzene-d5 (Surr)	93	cn	22 - 117	12/03/21 16:30	12/06/21 01:37	1
2-Fluorophenol (Surr)	52	cn	10 - 78	12/03/21 16:30	12/06/21 01:37	1
2-Fluorobiphenyl (Surr)	71	cn	35 - 100	12/03/21 16:30	12/06/21 01:37	1
2,4,6-Tribromophenol (Surr)	91	cn	10 - 150	12/03/21 16:30	12/06/21 01:37	1
Phenol-d5 (Surr)	40	cn	10 - 67	12/03/21 16:30	12/06/21 01:37	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	0.0020	U cn	0.020	0.0020	ug/L		12/03/21 08:38	12/03/21 16:23	1
alpha-BHC (1C)	0.0031	U cn	0.020	0.0031	ug/L		12/03/21 08:38	12/03/21 16:23	1
alpha-Chlordane (1C)	0.0031	U cn	0.020	0.0031	ug/L		12/03/21 08:38	12/03/21 16:23	1
beta-BHC (1C)	0.020	U cn	0.020	0.020	ug/L		12/03/21 08:38	12/03/21 16:23	1
delta-BHC (1C)	0.0035	U cn	0.020	0.0035	ug/L		12/03/21 08:38	12/03/21 16:23	1
Dieldrin (1C)	0.0054	U cn	0.031	0.0054	ug/L		12/03/21 08:38	12/03/21 16:23	1
Endosulfan I (1C)	0.0044	U cn	0.020	0.0044	ug/L		12/03/21 08:38	12/03/21 16:23	1
Endosulfan II (2C)	0.015	U cn	0.041	0.015	ug/L		12/03/21 08:38	12/03/21 16:23	1
Endosulfan sulfate (1C)	0.0059	U cn	0.031	0.0059	ug/L		12/03/21 08:38	12/03/21 16:23	1
Endrin (1C)	0.0083	U cn	0.031	0.0083	ug/L		12/03/21 08:38	12/03/21 16:23	1
Endrin aldehyde (1C)	0.020	U cn	0.10	0.020	ug/L		12/03/21 08:38	12/03/21 16:23	1
Endrin ketone (1C)	0.0051	U cn	0.031	0.0051	ug/L		12/03/21 08:38	12/03/21 16:23	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-12

Lab Sample ID: 410-65020-4

Date Collected: 11/29/21 12:35

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane) (1C)	0.0020	U cn	0.020	0.0020	ug/L		12/03/21 08:38	12/03/21 16:23	1
gamma-Chlordane (1C)	0.0071	U cn	0.041	0.0071	ug/L		12/03/21 08:38	12/03/21 16:23	1
Heptachlor (1C)	0.0020	U cn	0.020	0.0020	ug/L		12/03/21 08:38	12/03/21 16:23	1
Heptachlor epoxide (1C)	0.0023	U cn	0.020	0.0023	ug/L		12/03/21 08:38	12/03/21 16:23	1
Methoxychlor (1C)	0.031	U cn	0.11	0.031	ug/L		12/03/21 08:38	12/03/21 16:23	1
Toxaphene (1C)	0.31	U cn	1.0	0.31	ug/L		12/03/21 08:38	12/03/21 16:23	1
p,p'-DDD (1C)	0.0051	U cn	0.031	0.0051	ug/L		12/03/21 08:38	12/03/21 16:23	1
p,p'-DDE (1C)	0.0051	U cn	0.031	0.0051	ug/L		12/03/21 08:38	12/03/21 16:23	1
p,p'-DDT (2C)	0.0053	U cn	0.031	0.0053	ug/L		12/03/21 08:38	12/03/21 16:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	58	cn	20 - 149	12/03/21 08:38	12/03/21 16:23	1
DCB Decachlorobiphenyl (Surr) (2C)	59	cn	20 - 149	12/03/21 08:38	12/03/21 16:23	1
Tetrachloro-m-xylene (Surr) (1C)	90	cn	20 - 129	12/03/21 08:38	12/03/21 16:23	1
Tetrachloro-m-xylene (Surr) (2C)	89	cn	20 - 129	12/03/21 08:38	12/03/21 16:23	1

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.050	0.016	mg/L		12/02/21 20:18	12/06/21 13:18	1
Aluminum	1.2		0.30	0.15	mg/L		12/02/21 20:18	12/06/21 13:18	1
Arsenic	0.016	U	0.050	0.016	mg/L		12/02/21 20:18	12/06/21 13:18	1
Barium	0.045		0.0050	0.0010	mg/L		12/02/21 20:18	12/06/21 13:18	1
Beryllium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:18	12/06/21 13:18	1
Cadmium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:18	12/06/21 13:18	1
Calcium	38		0.50	0.096	mg/L		12/02/21 20:18	12/06/21 13:18	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/02/21 20:18	12/06/21 13:18	1
Cobalt	0.0015	U	0.0050	0.0015	mg/L		12/02/21 20:18	12/06/21 13:18	1
Copper	0.012	U	0.020	0.012	mg/L		12/02/21 20:18	12/06/21 13:18	1
Iron	1.9		0.20	0.040	mg/L		12/02/21 20:18	12/06/21 13:18	1
Lead	0.0071	U	0.015	0.0071	mg/L		12/02/21 20:18	12/06/21 13:18	1
Magnesium	9.6		0.10	0.040	mg/L		12/02/21 20:18	12/06/21 13:18	1
Manganese	0.12		0.010	0.0030	mg/L		12/02/21 20:18	12/06/21 13:18	1
Nickel	0.0021	U	0.010	0.0021	mg/L		12/02/21 20:18	12/06/21 13:18	1
Potassium	4.0		0.50	0.20	mg/L		12/02/21 20:18	12/06/21 13:18	1
Selenium	0.016	U	0.050	0.016	mg/L		12/02/21 20:18	12/06/21 13:18	1
Silver	0.0050	U ^5-	0.010	0.0050	mg/L		12/02/21 20:18	12/06/21 13:18	1
Sodium	16		1.0	0.24	mg/L		12/02/21 20:18	12/06/21 13:18	1
Thallium	0.0081	U ^3+	0.030	0.0081	mg/L		12/02/21 20:18	12/06/21 13:18	1
Zinc	0.012	J	0.020	0.0037	mg/L		12/02/21 20:18	12/06/21 13:18	1
Vanadium	0.0022	J	0.010	0.0019	mg/L		12/02/21 20:18	12/06/21 13:18	1

Method: 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 11:26	1
Aluminum	0.16	U	0.31	0.16	mg/L		12/03/21 10:38	12/08/21 11:26	1
Arsenic	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 11:26	1
Barium	0.037		0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 11:26	1
Beryllium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 11:26	1
Cadmium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 11:26	1
Calcium	37		0.52	0.099	mg/L		12/03/21 10:38	12/08/21 11:26	1

Client Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-12

Lab Sample ID: 410-65020-4

Date Collected: 11/29/21 12:35

Matrix: Water

Date Received: 11/30/21 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.0016	U	0.015	0.0016	mg/L		12/03/21 10:38	12/08/21 11:26	1
Cobalt	0.0015	U	0.0052	0.0015	mg/L		12/03/21 10:38	12/08/21 11:26	1
Copper	0.012	U	0.021	0.012	mg/L		12/03/21 10:38	12/08/21 11:26	1
Iron	0.079	J	0.21	0.041	mg/L		12/03/21 10:38	12/08/21 11:26	1
Lead	0.0073	U ^3+	0.015	0.0073	mg/L		12/03/21 10:38	12/08/21 11:26	1
Magnesium	9.4	^5-	0.10	0.041	mg/L		12/03/21 10:38	12/08/21 11:26	1
Manganese	0.0049	J	0.010	0.0031	mg/L		12/03/21 10:38	12/08/21 11:26	1
Nickel	0.0022	U	0.010	0.0022	mg/L		12/03/21 10:38	12/08/21 11:26	1
Potassium	3.8		0.52	0.21	mg/L		12/03/21 10:38	12/08/21 11:26	1
Selenium	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 11:26	1
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/03/21 10:38	12/08/21 11:26	1
Sodium	16		1.0	0.25	mg/L		12/03/21 10:38	12/08/21 11:26	1
Thallium	0.0083	U	0.031	0.0083	mg/L		12/03/21 10:38	12/08/21 15:19	1
Zinc	0.0038	U	0.021	0.0038	mg/L		12/03/21 10:38	12/08/21 11:26	1
Vanadium	0.0020	U	0.010	0.0020	mg/L		12/03/21 10:38	12/08/21 11:26	1

Method: 7470A - Mercury (CVAA)

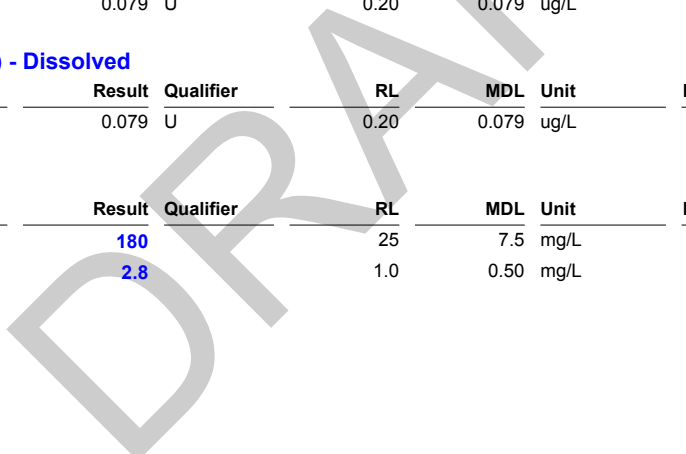
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/01/21 14:45	12/02/21 00:25	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/03/21 06:31	12/03/21 14:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	180		25	7.5	mg/L			12/02/21 13:31	2.5
Total Organic Carbon	2.8		1.0	0.50	mg/L			12/08/21 22:49	1



Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-65020-1	BH-20	97 cn	95 cn	96 cn	98 cn
410-65020-2	PS-04	98 cn	94 cn	95 cn	98 cn
410-65020-3	BH-10	98 cn	95 cn	96 cn	99 cn
410-65020-4	BH-12	98 cn	94 cn	97 cn	98 cn
LCS 410-201416/4	Lab Control Sample	99	98	97	99
MB 410-201416/6	Method Blank	99	95	96	98

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (31-119)	NBZ (22-117)	2FP (10-78)	FBP (35-100)	TBP (10-150)	PHL (10-67)
410-65020-1	BH-20	70 cn	86 cn	43 cn	68 cn	87 cn	38 cn
410-65020-2	PS-04	62 cn	81 cn	41 cn	71 cn	80 cn	34 cn
410-65020-3	BH-10	64 cn	69 cn	46 cn	68 cn	85 cn	37 cn
410-65020-4	BH-12	70 cn	93 cn	52 cn	71 cn	91 cn	40 cn
LCS 410-201294/2-A	Lab Control Sample	90	80	49	80	121	38
MB 410-201294/1-A	Method Blank	92	81	49	65	100	38

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (20-149)	DCB2 (20-149)	TCX1 (20-129)	TCX2 (20-129)
410-65020-1	BH-20	72 cn	71 cn	82 cn	83 cn
410-65020-2	PS-04	70 cn	73 cn	87 cn	89 cn
410-65020-3	BH-10	75 cn	74 cn	87 cn	86 cn
410-65020-4	BH-12	58 cn	59 cn	90 cn	89 cn
LCS 410-201063/2-A	Lab Control Sample	76	79	93	96
LCSD 410-201063/3-A	Lab Control Sample Dup	93	102	87	87
MB 410-201063/1-A	Method Blank	85	97	93	94

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

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

Lab Sample ID: MB 410-201416/6

Matrix: Water

Analysis Batch: 201416

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			12/03/21 21:27	1
trans-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			12/03/21 21:27	1
Ethylbenzene	0.40	U	1.0	0.40	ug/L			12/03/21 21:27	1
Styrene	0.30	U	5.0	0.30	ug/L			12/03/21 21:27	1
1,4-Dichlorobenzene	0.30	U	5.0	0.30	ug/L			12/03/21 21:27	1
1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L			12/03/21 21:27	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
4-Methyl-2-pentanone	0.50	U	10	0.50	ug/L			12/03/21 21:27	1
Methylcyclohexane	0.50	U	5.0	0.50	ug/L			12/03/21 21:27	1
Toluene	0.20	U	1.0	0.20	ug/L			12/03/21 21:27	1
Chlorobenzene	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
Cyclohexane	1.0	U	5.0	1.0	ug/L			12/03/21 21:27	1
1,2,4-Trichlorobenzene	0.30	U	5.0	0.30	ug/L			12/03/21 21:27	1
1,4-Dioxane	29	U	250	29	ug/L			12/03/21 21:27	1
Dibromochloromethane	0.20	U	1.0	0.20	ug/L			12/03/21 21:27	1
Tetrachloroethene	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
cis-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
trans-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
Methyl tertiary butyl ether	0.20	U	1.0	0.20	ug/L			12/03/21 21:27	1
m&p-Xylene	2.0	U	5.0	2.0	ug/L			12/03/21 21:27	1
1,3-Dichlorobenzene	0.30	U	5.0	0.30	ug/L			12/03/21 21:27	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
2-Hexanone	0.40	U	10	0.40	ug/L			12/03/21 21:27	1
Acetone	0.70	U	20	0.70	ug/L			12/03/21 21:27	1
Chloroform	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
Benzene	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
1,1,1-Trichloroethane	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
Bromomethane	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
Chloromethane	0.20	U	1.0	0.20	ug/L			12/03/21 21:27	1
Bromochloromethane	0.20	U	5.0	0.20	ug/L			12/03/21 21:27	1
Chloroethane	0.20	U	1.0	0.20	ug/L			12/03/21 21:27	1
Vinyl chloride	0.20	U	1.0	0.20	ug/L			12/03/21 21:27	1
Methylene Chloride	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
Carbon disulfide	0.30	U	5.0	0.30	ug/L			12/03/21 21:27	1
Bromoform	1.0	U	4.0	1.0	ug/L			12/03/21 21:27	1
Bromodichloromethane	0.20	U	1.0	0.20	ug/L			12/03/21 21:27	1
1,1-Dichloroethane	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
1,1-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
Trichlorofluoromethane	0.20	U	1.0	0.20	ug/L			12/03/21 21:27	1
Dichlorodifluoromethane	0.20	U	1.0	0.20	ug/L			12/03/21 21:27	1
Freon 113	0.30	U	10	0.30	ug/L			12/03/21 21:27	1
1,2-Dichloropropane	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
2-Butanone	0.50	U	10	0.50	ug/L			12/03/21 21:27	1
1,1,2-Trichloroethane	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
Trichloroethene	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
Methyl acetate	0.30	U	5.0	0.30	ug/L			12/03/21 21:27	1
1,1,1,2-Tetrachloroethane	0.30	U	1.0	0.30	ug/L			12/03/21 21:27	1
1,2,3-Trichlorobenzene	0.40	U	5.0	0.40	ug/L			12/03/21 21:27	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

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

Lab Sample ID: MB 410-201416/6

Matrix: Water

Analysis Batch: 201416

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	0.40	U	1.0	0.40	ug/L			12/03/21 21:27	1
1,2-Dichlorobenzene	0.20	U	5.0	0.20	ug/L			12/03/21 21:27	1
1,2-Dibromo-3-Chloropropane	0.30	U	5.0	0.30	ug/L			12/03/21 21:27	1
Isopropylbenzene	0.20	U	5.0	0.20	ug/L			12/03/21 21:27	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		12/03/21 21:27	1
4-Bromofluorobenzene (Surr)	95		80 - 120		12/03/21 21:27	1
Dibromofluoromethane (Surr)	96		80 - 120		12/03/21 21:27	1
Toluene-d8 (Surr)	98		80 - 120		12/03/21 21:27	1

Lab Sample ID: LCS 410-201416/4

Matrix: Water

Analysis Batch: 201416

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,3-Dichloropropene	20.0	20.2		ug/L		101	75 - 120
trans-1,3-Dichloropropene	20.0	20.6		ug/L		103	67 - 120
Ethylbenzene	20.0	19.7		ug/L		99	80 - 120
Styrene	20.0	19.6		ug/L		98	80 - 120
1,4-Dichlorobenzene	20.0	19.9		ug/L		99	80 - 120
1,2-Dibromoethane	20.0	20.6		ug/L		103	77 - 120
1,2-Dichloroethane	20.0	18.3		ug/L		91	73 - 124
4-Methyl-2-pentanone	250	261		ug/L		104	62 - 133
Methylcyclohexane	20.0	16.5		ug/L		83	67 - 121
Toluene	20.0	20.1		ug/L		101	80 - 120
Chlorobenzene	20.0	20.0		ug/L		100	80 - 120
Cyclohexane	20.0	17.5		ug/L		87	68 - 126
1,2,4-Trichlorobenzene	20.0	15.3		ug/L		76	63 - 120
1,4-Dioxane	500	601		ug/L		120	63 - 146
Dibromochloromethane	20.0	19.5		ug/L		97	71 - 120
Tetrachloroethene	20.0	18.6		ug/L		93	80 - 120
cis-1,2-Dichloroethene	20.0	20.8		ug/L		104	80 - 125
trans-1,2-Dichloroethene	20.0	19.4		ug/L		97	80 - 126
Methyl tertiary butyl ether	20.0	17.7		ug/L		88	69 - 122
m&p-Xylene	40.0	38.7		ug/L		97	80 - 120
1,3-Dichlorobenzene	20.0	19.5		ug/L		97	80 - 120
Carbon tetrachloride	20.0	17.2		ug/L		86	64 - 134
2-Hexanone	250	273		ug/L		109	56 - 135
Acetone	250	284		ug/L		114	54 - 157
Chloroform	20.0	19.3		ug/L		97	80 - 120
Benzene	20.0	20.7		ug/L		104	80 - 120
1,1,1-Trichloroethane	20.0	17.5		ug/L		87	67 - 126
Bromomethane	20.0	15.5		ug/L		78	53 - 128
Chloromethane	20.0	15.6		ug/L		78	56 - 121
Bromochloromethane	20.0	20.1		ug/L		100	80 - 120
Chloroethane	20.0	16.9		ug/L		85	55 - 123
Vinyl chloride	20.0	14.9		ug/L		75	56 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

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

Lab Sample ID: LCS 410-201416/4

Matrix: Water

Analysis Batch: 201416

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	19.0		ug/L		95	80 - 120
Carbon disulfide	20.0	17.8		ug/L		89	65 - 128
Bromoform	20.0	19.8		ug/L		99	51 - 120
Bromodichloromethane	20.0	20.1		ug/L		101	71 - 120
1,1-Dichloroethane	20.0	19.5		ug/L		98	80 - 120
1,1-Dichloroethene	20.0	18.9		ug/L		95	80 - 131
Trichlorofluoromethane	20.0	15.5		ug/L		78	55 - 135
Dichlorodifluoromethane	20.0	14.6		ug/L		73	41 - 127
Freon 113	20.0	15.7		ug/L		78	73 - 139
1,2-Dichloropropane	20.0	20.9		ug/L		104	80 - 120
2-Butanone	250	269		ug/L		108	59 - 135
1,1,2-Trichloroethane	20.0	20.7		ug/L		103	80 - 120
Trichloroethene	20.0	19.9		ug/L		99	80 - 120
Methyl acetate	20.0	21.5		ug/L		107	54 - 136
1,1,1,2-Tetrachloroethane	20.0	21.4		ug/L		107	72 - 120
1,2,3-Trichlorobenzene	20.0	14.6		ug/L		73	66 - 120
o-Xylene	20.0	18.4		ug/L		92	80 - 120
1,2-Dichlorobenzene	20.0	18.7		ug/L		94	80 - 120
1,2-Dibromo-3-Chloropropane	20.0	16.3		ug/L		82	47 - 131
Isopropylbenzene	20.0	18.2		ug/L		91	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	97		80 - 120
Toluene-d8 (Surr)	99		80 - 120

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

Lab Sample ID: MB 410-201294/1-A

Matrix: Water

Analysis Batch: 201628

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201294

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1'-Biphenyl	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
1,2,4,5-Tetrachlorobenzene	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
2,2'-oxybis[1-chloropropane]	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
2,3,4,6-Tetrachlorophenol	1.0	U	5.0	1.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
2,4,5-Trichlorophenol	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
2,4,6-Trichlorophenol	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
2,4-Dichlorophenol	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
2,4-Dimethylphenol	3.0	U	10	3.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
2,4-Dinitrophenol	14	U	30	14	ug/L		12/03/21 16:30	12/05/21 20:07	1
2,4-Dinitrotoluene	1.0	U	5.0	1.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
2,6-Dinitrotoluene	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
2-Chloronaphthalene	0.40	U	1.0	0.40	ug/L		12/03/21 16:30	12/05/21 20:07	1
2-Chlorophenol	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
2-Methylnaphthalene	0.10	U	0.50	0.10	ug/L		12/03/21 16:30	12/05/21 20:07	1
2-Methylphenol	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

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

Lab Sample ID: MB 410-201294/1-A

Matrix: Water

Analysis Batch: 201628

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201294

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2-Nitroaniline	1.0	U	5.0	1.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
2-Nitrophenol	1.0	U	5.0	1.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
3,3'-Dichlorobenzidine	4.0	U	10	4.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
3-Nitroaniline	2.0	U	5.0	2.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
4,6-Dinitro-2-methylphenol	8.0	U	21	8.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
4-Bromophenyl-phenylether	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
4-Chloro-3-methylphenol	1.0	U	5.0	1.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
4-Methylphenol	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
4-Nitroaniline	0.90	U	3.0	0.90	ug/L		12/03/21 16:30	12/05/21 20:07	1
4-Nitrophenol	10	U	30	10	ug/L		12/03/21 16:30	12/05/21 20:07	1
Acenaphthene	0.10	U	0.50	0.10	ug/L		12/03/21 16:30	12/05/21 20:07	1
Acenaphthylene	0.10	U	0.50	0.10	ug/L		12/03/21 16:30	12/05/21 20:07	1
Acetophenone	1.0	U	5.0	1.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
Anthracene	0.10	U	0.50	0.10	ug/L		12/03/21 16:30	12/05/21 20:07	1
Atrazine	1.0	U	5.0	1.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
Benzaldehyde	1.0	U	5.0	1.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
Benzo[a]anthracene	0.10	U	0.50	0.10	ug/L		12/03/21 16:30	12/05/21 20:07	1
Benzo[a]pyrene	0.11	U	0.50	0.11	ug/L		12/03/21 16:30	12/05/21 20:07	1
Benzo[b]fluoranthene	0.10	U	0.50	0.10	ug/L		12/03/21 16:30	12/05/21 20:07	1
Benzo[g,h,i]perylene	0.10	U	0.50	0.10	ug/L		12/03/21 16:30	12/05/21 20:07	1
Benzo[k]fluoranthene	0.10	U	0.50	0.10	ug/L		12/03/21 16:30	12/05/21 20:07	1
Bis(2-chloroethoxy)methane	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
Bis(2-chloroethyl)ether	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
Bis(2-ethylhexyl) phthalate	2.0	U	5.0	2.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
Butylbenzylphthalate	2.0	U	5.0	2.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
Caprolactam	3.0	U	7.0	3.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
Carbazole	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
Chrysene	0.10	U	0.50	0.10	ug/L		12/03/21 16:30	12/05/21 20:07	1
Di-n-butyl phthalate	2.0	U	5.0	2.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
Di-n-octyl phthalate	5.0	U	11	5.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
Dibenz(a,h)anthracene	0.10	U	0.50	0.10	ug/L		12/03/21 16:30	12/05/21 20:07	1
Dibenzofuran	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
Diethyl phthalate	2.0	U	5.0	2.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
Dimethyl phthalate	2.0	U	5.0	2.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
Fluoranthene	0.10	U	0.50	0.10	ug/L		12/03/21 16:30	12/05/21 20:07	1
Fluorene	0.12	U	0.50	0.12	ug/L		12/03/21 16:30	12/05/21 20:07	1
Hexachlorobenzene	0.11	U	0.50	0.11	ug/L		12/03/21 16:30	12/05/21 20:07	1
Hexachlorobutadiene	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
Hexachlorocyclopentadiene	5.0	U	11	5.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
Hexachloroethane	0.50	U	5.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
Indeno[1,2,3-cd]pyrene	0.11	U	0.50	0.11	ug/L		12/03/21 16:30	12/05/21 20:07	1
Isophorone	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
N-Nitrosodi-n-propylamine	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
N-Nitrosodiphenylamine	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
Naphthalene	0.10	U	0.50	0.10	ug/L		12/03/21 16:30	12/05/21 20:07	1
Nitrobenzene	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
Phenanthrene	0.11	U	0.50	0.11	ug/L		12/03/21 16:30	12/05/21 20:07	1
Phenol	0.50	U	2.0	0.50	ug/L		12/03/21 16:30	12/05/21 20:07	1
Pyrene	0.10	U	0.50	0.10	ug/L		12/03/21 16:30	12/05/21 20:07	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

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

Lab Sample ID: MB 410-201294/1-A

Matrix: Water

Analysis Batch: 201628

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201294

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	1.0	U	5.0	1.0	ug/L		12/03/21 16:30	12/05/21 20:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	92		31 - 119				12/03/21 16:30	12/05/21 20:07	1
Nitrobenzene-d5 (Surr)	81		22 - 117				12/03/21 16:30	12/05/21 20:07	1
2-Fluorophenol (Surr)	49		10 - 78				12/03/21 16:30	12/05/21 20:07	1
2-Fluorobiphenyl (Surr)	65		35 - 100				12/03/21 16:30	12/05/21 20:07	1
2,4,6-Tribromophenol (Surr)	100		10 - 150				12/03/21 16:30	12/05/21 20:07	1
Phenol-d5 (Surr)	38		10 - 67				12/03/21 16:30	12/05/21 20:07	1

Lab Sample ID: LCS 410-201294/2-A

Matrix: Water

Analysis Batch: 201628

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201294

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	50.0	47.3		ug/L		95	53 - 120
1,2,4,5-Tetrachlorobenzene	50.0	40.4		ug/L		81	39 - 120
2,2'-oxybis[1-chloropropane]	50.0	36.6		ug/L		73	48 - 120
2,3,4,6-Tetrachlorophenol	50.0	55.4		ug/L		111	65 - 123
2,4,5-Trichlorophenol	50.0	52.6		ug/L		105	66 - 120
2,4,6-Trichlorophenol	50.0	45.3		ug/L		91	63 - 120
2,4-Dichlorophenol	50.0	44.3		ug/L		89	64 - 120
2,4-Dimethylphenol	50.0	45.8		ug/L		92	64 - 107
2,4-Dinitrophenol	100	96.2		ug/L		96	33 - 132
2,4-Dinitrotoluene	50.0	57.9		ug/L		116	71 - 120
2,6-Dinitrotoluene	50.0	46.8		ug/L		94	72 - 120
2-Chloronaphthalene	50.0	41.8		ug/L		84	51 - 120
2-Chlorophenol	50.0	39.4		ug/L		79	57 - 120
2-Methylnaphthalene	50.0	34.8		ug/L		70	53 - 120
2-Methylphenol	50.0	44.2		ug/L		88	51 - 120
2-Nitroaniline	50.0	59.3		ug/L		119	67 - 120
2-Nitrophenol	50.0	43.9		ug/L		88	59 - 120
3,3'-Dichlorobenzidine	100	119	*+	ug/L		119	42 - 107
3-Nitroaniline	50.0	42.9		ug/L		86	52 - 120
4,6-Dinitro-2-methylphenol	100	115		ug/L		115	53 - 123
4-Bromophenyl-phenylether	50.0	55.0		ug/L		110	66 - 120
4-Chloro-3-methylphenol	50.0	47.6		ug/L		95	60 - 120
4-Methylphenol	50.0	41.8		ug/L		84	44 - 120
4-Nitroaniline	50.0	52.8		ug/L		106	60 - 120
4-Nitrophenol	100	68.3		ug/L		68	19 - 120
Acenaphthene	50.0	48.8		ug/L		98	59 - 120
Acenaphthylene	50.0	42.1		ug/L		84	63 - 121
Acetophenone	50.0	45.1		ug/L		90	62 - 120
Anthracene	50.0	57.1		ug/L		114	73 - 120
Atrazine	50.0	71.6	*+	ug/L		143	66 - 122
Benzaldehyde	50.0	32.0		ug/L		64	45 - 120
Benzo[a]anthracene	50.0	61.7	*+	ug/L		123	74 - 120
Benzo[a]pyrene	50.0	42.2		ug/L		84	60 - 116

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

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

Lab Sample ID: LCS 410-201294/2-A

Matrix: Water

Analysis Batch: 201628

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201294

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzo[b]fluoranthene	50.0	44.0		ug/L		88	71 - 120
Benzo[g,h,i]perylene	50.0	40.7		ug/L		81	60 - 120
Benzo[k]fluoranthene	50.0	46.9		ug/L		94	78 - 120
Bis(2-chloroethoxy)methane	50.0	45.9		ug/L		92	62 - 120
Bis(2-chloroethyl)ether	50.0	39.2		ug/L		78	62 - 120
Bis(2-ethylhexyl) phthalate	50.0	75.1	*+	ug/L		150	60 - 120
Butylbenzylphthalate	50.0	38.2		ug/L		76	11 - 125
Caprolactam	50.0	15.7		ug/L		31	12 - 120
Carbazole	50.0	46.8		ug/L		94	74 - 120
Chrysene	50.0	63.2	*+	ug/L		126	76 - 120
Di-n-butyl phthalate	50.0	40.6		ug/L		81	53 - 120
Di-n-octyl phthalate	50.0	49.7		ug/L		99	59 - 120
Dibenz(a,h)anthracene	50.0	38.6		ug/L		77	62 - 120
Dibenzofuran	50.0	51.4		ug/L		103	60 - 112
Diethyl phthalate	50.0	35.8		ug/L		72	27 - 120
Dimethyl phthalate	50.0	23.1		ug/L		46	10 - 124
Fluoranthene	50.0	46.0		ug/L		92	74 - 120
Fluorene	50.0	46.3		ug/L		93	64 - 120
Hexachlorobenzene	50.0	53.1		ug/L		106	65 - 120
Hexachlorobutadiene	50.0	25.0		ug/L		50	24 - 120
Hexachlorocyclopentadiene	50.0	10.4	J	ug/L		21	10 - 120
Hexachloroethane	50.0	25.0		ug/L		50	22 - 120
Indeno[1,2,3-cd]pyrene	50.0	38.9		ug/L		78	52 - 121
Isophorone	50.0	47.9		ug/L		96	70 - 120
N-Nitrosodi-n-propylamine	50.0	47.0		ug/L		94	63 - 120
N-Nitrosodiphenylamine	42.5	40.8		ug/L		96	72 - 120
Naphthalene	50.0	37.3		ug/L		75	51 - 102
Nitrobenzene	50.0	43.9		ug/L		88	59 - 120
Phenanthrene	50.0	46.8		ug/L		94	72 - 120
Phenol	50.0	21.0		ug/L		42	22 - 120
Pyrene	50.0	45.4		ug/L		91	73 - 120
Pentachlorophenol	100	97.5		ug/L		97	48 - 123

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
p-Terphenyl-d14 (Surr)	90		31 - 119
Nitrobenzene-d5 (Surr)	80		22 - 117
2-Fluorophenol (Surr)	49		10 - 78
2-Fluorobiphenyl (Surr)	80		35 - 100
2,4,6-Tribromophenol (Surr)	121		10 - 150
Phenol-d5 (Surr)	38		10 - 67

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-201063/1-A

Matrix: Water

Analysis Batch: 201019

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201063

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin (1C)	0.0020	U	0.020	0.0020	ug/L		12/03/21 08:38	12/03/21 15:18	1

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

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

Lab Sample ID: MB 410-201063/1-A

Matrix: Water

Analysis Batch: 201019

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201063

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
alpha-BHC (1C)	0.0030	U	0.020	0.0030	ug/L		12/03/21 08:38	12/03/21 15:18	1
alpha-Chlordane (1C)	0.0030	U	0.020	0.0030	ug/L		12/03/21 08:38	12/03/21 15:18	1
beta-BHC (1C)	0.00835	J	0.020	0.0034	ug/L		12/03/21 08:38	12/03/21 15:18	1
delta-BHC (1C)	0.0034	U	0.020	0.0034	ug/L		12/03/21 08:38	12/03/21 15:18	1
Dieldrin (1C)	0.0053	U	0.030	0.0053	ug/L		12/03/21 08:38	12/03/21 15:18	1
Endosulfan I (1C)	0.0043	U	0.020	0.0043	ug/L		12/03/21 08:38	12/03/21 15:18	1
Endosulfan II (1C)	0.015	U	0.040	0.015	ug/L		12/03/21 08:38	12/03/21 15:18	1
Endosulfan sulfate (1C)	0.0058	U	0.030	0.0058	ug/L		12/03/21 08:38	12/03/21 15:18	1
Endrin (1C)	0.0081	U	0.030	0.0081	ug/L		12/03/21 08:38	12/03/21 15:18	1
Endrin aldehyde (1C)	0.020	U	0.10	0.020	ug/L		12/03/21 08:38	12/03/21 15:18	1
Endrin ketone (1C)	0.0050	U	0.030	0.0050	ug/L		12/03/21 08:38	12/03/21 15:18	1
gamma-BHC (Lindane) (1C)	0.0020	U	0.020	0.0020	ug/L		12/03/21 08:38	12/03/21 15:18	1
gamma-Chlordane (1C)	0.0070	U	0.040	0.0070	ug/L		12/03/21 08:38	12/03/21 15:18	1
Heptachlor (1C)	0.0020	U	0.020	0.0020	ug/L		12/03/21 08:38	12/03/21 15:18	1
Heptachlor epoxide (1C)	0.0023	U	0.020	0.0023	ug/L		12/03/21 08:38	12/03/21 15:18	1
Methoxychlor (1C)	0.030	U	0.11	0.030	ug/L		12/03/21 08:38	12/03/21 15:18	1
Toxaphene (1C)	0.30	U	1.0	0.30	ug/L		12/03/21 08:38	12/03/21 15:18	1
p,p'-DDD (1C)	0.0050	U	0.030	0.0050	ug/L		12/03/21 08:38	12/03/21 15:18	1
p,p'-DDE (1C)	0.0050	U	0.030	0.0050	ug/L		12/03/21 08:38	12/03/21 15:18	1
p,p'-DDT (1C)	0.0052	U	0.030	0.0052	ug/L		12/03/21 08:38	12/03/21 15:18	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	85		20 - 149	12/03/21 08:38	12/03/21 15:18	1
DCB Decachlorobiphenyl (Surr) (2C)	97		20 - 149	12/03/21 08:38	12/03/21 15:18	1
Tetrachloro-m-xylene (Surr) (1C)	93		20 - 129	12/03/21 08:38	12/03/21 15:18	1
Tetrachloro-m-xylene (Surr) (2C)	94		20 - 129	12/03/21 08:38	12/03/21 15:18	1

Lab Sample ID: LCS 410-201063/2-A

Matrix: Water

Analysis Batch: 201019

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201063

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha-BHC (1C)	0.101	0.119		ug/L		117	47 - 132
beta-BHC (1C)	0.100	0.117		ug/L		117	65 - 139
delta-BHC (1C)	0.100	0.121		ug/L		121	56 - 141
Dieldrin (1C)	0.200	0.247		ug/L		123	58 - 145
Endosulfan I (1C)	0.101	0.111		ug/L		110	40 - 138
Endosulfan II (1C)	0.201	0.244		ug/L		121	61 - 138
Endosulfan sulfate (1C)	0.201	0.248		ug/L		123	41 - 133
Endrin (1C)	0.200	0.249		ug/L		125	63 - 131
Endrin aldehyde (1C)	0.201	0.232		ug/L		115	57 - 135
gamma-BHC (Lindane) (1C)	0.100	0.112		ug/L		112	61 - 139
Heptachlor (1C)	0.101	0.107		ug/L		106	35 - 136
Heptachlor epoxide (1C)	0.100	0.118		ug/L		118	59 - 146
Methoxychlor (1C)	1.01	1.22		ug/L		121	66 - 148
p,p'-DDD (1C)	0.201	0.261		ug/L		130	42 - 148
p,p'-DDE (1C)	0.201	0.238		ug/L		118	20 - 140

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

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

Lab Sample ID: LCS 410-201063/2-A

Matrix: Water

Analysis Batch: 201019

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201063

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
p,p'-DDT (1C)	0.201	0.241		ug/L		120	40 - 145
Surrogate	%Recovery	LCS Qualifier	LCS Limits				
DCB Decachlorobiphenyl (Surr) (1C)	76		20 - 149				
DCB Decachlorobiphenyl (Surr) (2C)	79		20 - 149				
Tetrachloro-m-xylene (Surr) (1C)	93		20 - 129				
Tetrachloro-m-xylene (Surr) (2C)	96		20 - 129				

Lab Sample ID: LCSD 410-201063/3-A

Matrix: Water

Analysis Batch: 201019

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 201063

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aldrin (1C)	0.101	0.0996		ug/L		98	10 - 148	6	30
alpha-BHC (1C)	0.101	0.117		ug/L		116	47 - 132	2	30
beta-BHC (1C)	0.100	0.115		ug/L		115	65 - 139	2	30
delta-BHC (1C)	0.100	0.119		ug/L		119	56 - 141	2	30
Dieldrin (1C)	0.200	0.250		ug/L		125	58 - 145	1	30
Endosulfan I (1C)	0.101	0.110		ug/L		108	40 - 138	1	30
Endosulfan II (1C)	0.201	0.232		ug/L		115	61 - 138	5	30
Endosulfan sulfate (1C)	0.201	0.238		ug/L		118	41 - 133	4	30
Endrin (1C)	0.200	0.244		ug/L		122	63 - 131	2	30
Endrin aldehyde (1C)	0.201	0.226		ug/L		112	57 - 135	2	20
gamma-BHC (Lindane) (1C)	0.100	0.112		ug/L		112	61 - 139	0	30
Heptachlor (1C)	0.101	0.103		ug/L		102	35 - 136	4	30
Heptachlor epoxide (1C)	0.100	0.113		ug/L		113	59 - 146	4	30
Methoxychlor (1C)	1.01	1.22		ug/L		121	66 - 148	0	30
p,p'-DDD (1C)	0.201	0.244		ug/L		121	42 - 148	7	30
p,p'-DDE (1C)	0.201	0.224		ug/L		111	20 - 140	6	30
p,p'-DDT (1C)	0.201	0.238		ug/L		118	40 - 145	1	30
Surrogate	%Recovery	LCSD Qualifier	LCSD Limits						
DCB Decachlorobiphenyl (Surr) (1C)	93		20 - 149						
DCB Decachlorobiphenyl (Surr) (2C)	102		20 - 149						
Tetrachloro-m-xylene (Surr) (1C)	87		20 - 129						
Tetrachloro-m-xylene (Surr) (2C)	87		20 - 129						

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-201187/1-A
Matrix: Water
Analysis Batch: 202925

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201187

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 10:59	1
Aluminum	0.16	U	0.31	0.16	mg/L		12/03/21 10:38	12/08/21 10:59	1
Arsenic	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 10:59	1
Barium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 10:59	1
Beryllium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 10:59	1
Cadmium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 10:59	1
Calcium	0.099	U	0.52	0.099	mg/L		12/03/21 10:38	12/08/21 10:59	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/03/21 10:38	12/08/21 10:59	1
Cobalt	0.0015	U	0.0052	0.0015	mg/L		12/03/21 10:38	12/08/21 10:59	1
Copper	0.012	U	0.021	0.012	mg/L		12/03/21 10:38	12/08/21 10:59	1
Iron	0.041	U	0.21	0.041	mg/L		12/03/21 10:38	12/08/21 10:59	1
Lead	0.0073	U ^3+	0.015	0.0073	mg/L		12/03/21 10:38	12/08/21 10:59	1
Magnesium	0.041	U ^5-	0.10	0.041	mg/L		12/03/21 10:38	12/08/21 10:59	1
Manganese	0.0031	U	0.010	0.0031	mg/L		12/03/21 10:38	12/08/21 10:59	1
Nickel	0.0022	U	0.010	0.0022	mg/L		12/03/21 10:38	12/08/21 10:59	1
Potassium	0.21	U	0.52	0.21	mg/L		12/03/21 10:38	12/08/21 10:59	1
Selenium	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 10:59	1
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/03/21 10:38	12/08/21 10:59	1
Sodium	0.25	U	1.0	0.25	mg/L		12/03/21 10:38	12/08/21 10:59	1
Zinc	0.0038	U	0.021	0.0038	mg/L		12/03/21 10:38	12/08/21 10:59	1
Vanadium	0.0020	U	0.010	0.0020	mg/L		12/03/21 10:38	12/08/21 10:59	1

Lab Sample ID: MB 410-201187/1-A
Matrix: Water
Analysis Batch: 203044

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201187

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Thallium	0.0083	U	0.031	0.0083	mg/L		12/03/21 10:38	12/08/21 15:13	1

Lab Sample ID: LCS 410-201187/2-A
Matrix: Water
Analysis Batch: 202925

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	5.00	5.26		mg/L		105	80 - 120
Arsenic	0.500	0.495		mg/L		99	80 - 120
Barium	0.500	0.535		mg/L		107	80 - 120
Beryllium	0.0500	0.0521		mg/L		104	80 - 120
Cadmium	0.0500	0.0528		mg/L		106	80 - 120
Calcium	5.00	4.96		mg/L		99	80 - 120
Chromium	0.500	0.526		mg/L		105	80 - 120
Cobalt	0.500	0.539		mg/L		108	80 - 120
Copper	0.500	0.517		mg/L		103	80 - 120
Iron	5.00	5.31		mg/L		106	80 - 120
Lead	0.0500	0.0542	^3+	mg/L		108	80 - 120
Magnesium	5.00	5.06	^5-	mg/L		101	80 - 120
Manganese	0.500	0.522		mg/L		104	80 - 120
Nickel	0.500	0.529		mg/L		106	80 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

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

Lab Sample ID: LCS 410-201187/2-A
Matrix: Water
Analysis Batch: 202925

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201187

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Potassium	5.00	5.11		mg/L		102	80 - 120
Selenium	0.100	0.110		mg/L		110	80 - 120
Silver	0.0500	0.0527	^5-	mg/L		105	80 - 120
Sodium	5.00	5.00		mg/L		100	80 - 120
Zinc	0.500	0.507		mg/L		101	80 - 120
Vanadium	0.500	0.518		mg/L		104	80 - 120

Lab Sample ID: LCS 410-201187/2-A
Matrix: Water
Analysis Batch: 203044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201187

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Thallium	0.100	0.101		mg/L		101	80 - 120

Lab Sample ID: MB 410-200946/1-A
Matrix: Water
Analysis Batch: 201919

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 200946

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	0.016	U	0.050	0.016	mg/L		12/02/21 20:18	12/06/21 11:37	1
Aluminum	0.15	U	0.30	0.15	mg/L		12/02/21 20:18	12/06/21 11:37	1
Arsenic	0.016	U	0.050	0.016	mg/L		12/02/21 20:18	12/06/21 11:37	1
Barium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:18	12/06/21 11:37	1
Beryllium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:18	12/06/21 11:37	1
Cadmium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:18	12/06/21 11:37	1
Calcium	0.096	U	0.50	0.096	mg/L		12/02/21 20:18	12/06/21 11:37	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/02/21 20:18	12/06/21 11:37	1
Cobalt	0.0015	U	0.0050	0.0015	mg/L		12/02/21 20:18	12/06/21 11:37	1
Copper	0.012	U	0.020	0.012	mg/L		12/02/21 20:18	12/06/21 11:37	1
Iron	0.040	U	0.20	0.040	mg/L		12/02/21 20:18	12/06/21 11:37	1
Lead	0.0071	U	0.015	0.0071	mg/L		12/02/21 20:18	12/06/21 11:37	1
Magnesium	0.040	U	0.10	0.040	mg/L		12/02/21 20:18	12/06/21 11:37	1
Manganese	0.0030	U	0.010	0.0030	mg/L		12/02/21 20:18	12/06/21 11:37	1
Nickel	0.0021	U	0.010	0.0021	mg/L		12/02/21 20:18	12/06/21 11:37	1
Potassium	0.20	U	0.50	0.20	mg/L		12/02/21 20:18	12/06/21 11:37	1
Selenium	0.016	U	0.050	0.016	mg/L		12/02/21 20:18	12/06/21 11:37	1
Silver	0.0050	U ^5-	0.010	0.0050	mg/L		12/02/21 20:18	12/06/21 11:37	1
Sodium	0.24	U	1.0	0.24	mg/L		12/02/21 20:18	12/06/21 11:37	1
Thallium	0.0081	U ^3+	0.030	0.0081	mg/L		12/02/21 20:18	12/06/21 11:37	1
Zinc	0.0037	U	0.020	0.0037	mg/L		12/02/21 20:18	12/06/21 11:37	1
Vanadium	0.0019	U	0.010	0.0019	mg/L		12/02/21 20:18	12/06/21 11:37	1

Lab Sample ID: LCS 410-200946/2-A
Matrix: Water
Analysis Batch: 201919

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 200946

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Antimony	0.100	0.112		mg/L		112	80 - 120
Aluminum	5.00	5.07		mg/L		101	80 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

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

Lab Sample ID: LCS 410-200946/2-A
Matrix: Water
Analysis Batch: 201919

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 200946

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Arsenic	0.500	0.518		mg/L		104	80 - 120
Barium	0.500	0.499		mg/L		100	80 - 120
Beryllium	0.0500	0.0510		mg/L		102	80 - 120
Cadmium	0.0500	0.0527		mg/L		106	80 - 120
Calcium	5.00	4.90		mg/L		98	80 - 120
Chromium	0.500	0.502		mg/L		100	80 - 120
Cobalt	0.500	0.521		mg/L		104	80 - 120
Copper	0.500	0.494		mg/L		99	80 - 120
Iron	5.00	5.16		mg/L		103	80 - 120
Lead	0.0500	0.0550		mg/L		110	80 - 120
Magnesium	5.00	4.91		mg/L		98	80 - 120
Manganese	0.500	0.505		mg/L		101	80 - 120
Nickel	0.500	0.543		mg/L		109	80 - 120
Potassium	5.00	4.75		mg/L		95	80 - 120
Selenium	0.100	0.106		mg/L		106	80 - 120
Silver	0.0500	0.0500	^5-	mg/L		100	80 - 120
Sodium	5.00	4.93		mg/L		99	80 - 120
Zinc	0.500	0.506		mg/L		101	80 - 120
Vanadium	0.500	0.498		mg/L		100	80 - 120

Lab Sample ID: MB 410-201601/1-A
Matrix: Water
Analysis Batch: 202480

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 201601

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	0.016	U	0.050	0.016	mg/L		12/05/21 10:33	12/07/21 11:32	1
Aluminum	0.15	U	0.30	0.15	mg/L		12/05/21 10:33	12/07/21 11:32	1
Arsenic	0.016	U	0.050	0.016	mg/L		12/05/21 10:33	12/07/21 11:32	1
Barium	0.0010	U	0.0050	0.0010	mg/L		12/05/21 10:33	12/07/21 11:32	1
Beryllium	0.0010	U	0.0050	0.0010	mg/L		12/05/21 10:33	12/07/21 11:32	1
Cadmium	0.0010	U	0.0050	0.0010	mg/L		12/05/21 10:33	12/07/21 11:32	1
Calcium	0.096	U	0.50	0.096	mg/L		12/05/21 10:33	12/07/21 11:32	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/05/21 10:33	12/07/21 11:32	1
Cobalt	0.0015	U	0.0050	0.0015	mg/L		12/05/21 10:33	12/07/21 11:32	1
Copper	0.012	U	0.020	0.012	mg/L		12/05/21 10:33	12/07/21 11:32	1
Iron	0.040	U	0.20	0.040	mg/L		12/05/21 10:33	12/07/21 11:32	1
Lead	0.0071	U	0.015	0.0071	mg/L		12/05/21 10:33	12/07/21 11:32	1
Magnesium	0.040	U ^5-	0.10	0.040	mg/L		12/05/21 10:33	12/07/21 11:32	1
Manganese	0.0030	U	0.010	0.0030	mg/L		12/05/21 10:33	12/07/21 11:32	1
Nickel	0.0021	U	0.010	0.0021	mg/L		12/05/21 10:33	12/07/21 11:32	1
Potassium	0.20	U	0.50	0.20	mg/L		12/05/21 10:33	12/07/21 11:32	1
Selenium	0.016	U	0.050	0.016	mg/L		12/05/21 10:33	12/07/21 11:32	1
Silver	0.0050	U ^5-	0.010	0.0050	mg/L		12/05/21 10:33	12/07/21 11:32	1
Sodium	0.24	U	1.0	0.24	mg/L		12/05/21 10:33	12/07/21 11:32	1
Zinc	0.0037	U	0.020	0.0037	mg/L		12/05/21 10:33	12/07/21 11:32	1
Vanadium	0.0019	U	0.010	0.0019	mg/L		12/05/21 10:33	12/07/21 11:32	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

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

Lab Sample ID: MB 410-201601/1-A
Matrix: Water
Analysis Batch: 202920

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 201601

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Thallium	0.0081	U ^3+	0.030	0.0081	mg/L		12/05/21 10:33	12/08/21 12:19	1

Lab Sample ID: LCS 410-201601/2-A
Matrix: Water
Analysis Batch: 202480

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 201601

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				
Antimony	0.100	0.100		mg/L		100	80 - 120
Aluminum	5.00	4.85		mg/L		97	80 - 120
Arsenic	0.500	0.509		mg/L		102	80 - 120
Barium	0.500	0.506		mg/L		101	80 - 120
Beryllium	0.0500	0.0503		mg/L		101	80 - 120
Cadmium	0.0500	0.0516		mg/L		103	80 - 120
Calcium	5.00	4.86		mg/L		97	80 - 120
Chromium	0.500	0.505		mg/L		101	80 - 120
Cobalt	0.500	0.513		mg/L		103	80 - 120
Copper	0.500	0.498		mg/L		99	80 - 120
Iron	5.00	5.12		mg/L		102	80 - 120
Lead	0.0500	0.0522		mg/L		104	80 - 120
Magnesium	5.00	4.88	^5-	mg/L		98	80 - 120
Manganese	0.500	0.501		mg/L		100	80 - 120
Nickel	0.500	0.524		mg/L		105	80 - 120
Potassium	5.00	4.86		mg/L		97	80 - 120
Selenium	0.100	0.106		mg/L		106	80 - 120
Silver	0.0500	0.0498	^5-	mg/L		100	80 - 120
Sodium	5.00	4.90		mg/L		98	80 - 120
Zinc	0.500	0.513		mg/L		103	80 - 120
Vanadium	0.500	0.490		mg/L		98	80 - 120

Lab Sample ID: LCS 410-201601/2-A
Matrix: Water
Analysis Batch: 202920

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 201601

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				
Thallium	0.100	0.111	^3+	mg/L		111	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-200311/1-A
Matrix: Water
Analysis Batch: 200474

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 200311

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.079	U	0.20	0.079	ug/L		12/01/21 14:45	12/01/21 23:44	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 410-200311/2-A
Matrix: Water
Analysis Batch: 200474

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 200311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.884		ug/L		88	80 - 118

Lab Sample ID: LCSD 410-200311/3-A
Matrix: Water
Analysis Batch: 200474

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 200311

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	1.00	0.875		ug/L		87	80 - 118	1	20

Lab Sample ID: MB 410-201029/1-A
Matrix: Water
Analysis Batch: 201286

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201029

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/03/21 06:31	12/03/21 13:52	1

Lab Sample ID: LCS 410-201029/2-A
Matrix: Water
Analysis Batch: 201286

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201029

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.913		ug/L		91	80 - 118

Method: 2340C-2011 - Hardness, Total

Lab Sample ID: MB 410-200799/6
Matrix: Water
Analysis Batch: 200799

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	3.0	U	10	3.0	mg/L			12/02/21 12:03	1

Lab Sample ID: LCS 410-200799/7
Matrix: Water
Analysis Batch: 200799

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Hardness	40.0	40.5		mg/L		101	91 - 108

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav

Lab Sample ID: MB 410-203558/6
Matrix: Water
Analysis Batch: 203558

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			12/08/21 21:12	1

QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav (Continued)

Lab Sample ID: LCS 410-203558/5
Matrix: Water
Analysis Batch: 203558

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25.0	25.2		mg/L		101	91 - 113

Lab Sample ID: 410-65020-1 MS
Matrix: Water
Analysis Batch: 203558

Client Sample ID: BH-20
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	2.3		10.0	12.8		mg/L		105	91 - 113

Lab Sample ID: 410-65020-1 DU
Matrix: Water
Analysis Batch: 203558

Client Sample ID: BH-20
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	2.3		2.37		mg/L		1	3

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QC Association Summary

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

GC/MS VOA

Analysis Batch: 201416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Total/NA	Water	8260C	
410-65020-2	PS-04	Total/NA	Water	8260C	
410-65020-3	BH-10	Total/NA	Water	8260C	
410-65020-4	BH-12	Total/NA	Water	8260C	
MB 410-201416/6	Method Blank	Total/NA	Water	8260C	
LCS 410-201416/4	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 201294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Total/NA	Water	3510C	
410-65020-2	PS-04	Total/NA	Water	3510C	
410-65020-3	BH-10	Total/NA	Water	3510C	
410-65020-4	BH-12	Total/NA	Water	3510C	
MB 410-201294/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-201294/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 201628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Total/NA	Water	8270D	201294
410-65020-2	PS-04	Total/NA	Water	8270D	201294
410-65020-3	BH-10	Total/NA	Water	8270D	201294
410-65020-4	BH-12	Total/NA	Water	8270D	201294
MB 410-201294/1-A	Method Blank	Total/NA	Water	8270D	201294
LCS 410-201294/2-A	Lab Control Sample	Total/NA	Water	8270D	201294

GC Semi VOA

Analysis Batch: 201019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Total/NA	Water	8081B	201063
410-65020-2	PS-04	Total/NA	Water	8081B	201063
410-65020-3	BH-10	Total/NA	Water	8081B	201063
410-65020-4	BH-12	Total/NA	Water	8081B	201063
MB 410-201063/1-A	Method Blank	Total/NA	Water	8081B	201063
LCS 410-201063/2-A	Lab Control Sample	Total/NA	Water	8081B	201063
LCSD 410-201063/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	201063

Prep Batch: 201063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Total/NA	Water	3510C	
410-65020-2	PS-04	Total/NA	Water	3510C	
410-65020-3	BH-10	Total/NA	Water	3510C	
410-65020-4	BH-12	Total/NA	Water	3510C	
MB 410-201063/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-201063/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-201063/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

QC Association Summary

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Metals

Filtration Batch: 200015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Dissolved	Water	Filtration	
410-65020-2	PS-04	Dissolved	Water	Filtration	
410-65020-3	BH-10	Dissolved	Water	Filtration	
410-65020-4	BH-12	Dissolved	Water	Filtration	

Prep Batch: 200311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Total/NA	Water	7470A	
410-65020-2	PS-04	Total/NA	Water	7470A	
410-65020-3	BH-10	Total/NA	Water	7470A	
410-65020-4	BH-12	Total/NA	Water	7470A	
MB 410-200311/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-200311/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 410-200311/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	

Analysis Batch: 200474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Total/NA	Water	7470A	200311
410-65020-2	PS-04	Total/NA	Water	7470A	200311
410-65020-3	BH-10	Total/NA	Water	7470A	200311
410-65020-4	BH-12	Total/NA	Water	7470A	200311
MB 410-200311/1-A	Method Blank	Total/NA	Water	7470A	200311
LCS 410-200311/2-A	Lab Control Sample	Total/NA	Water	7470A	200311
LCSD 410-200311/3-A	Lab Control Sample Dup	Total/NA	Water	7470A	200311

Prep Batch: 200946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Total Recoverable	Water	3005A	
410-65020-3	BH-10	Total Recoverable	Water	3005A	
410-65020-4	BH-12	Total Recoverable	Water	3005A	
MB 410-200946/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-200946/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 201029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Dissolved	Water	7470A	200015
410-65020-2	PS-04	Dissolved	Water	7470A	200015
410-65020-3	BH-10	Dissolved	Water	7470A	200015
410-65020-4	BH-12	Dissolved	Water	7470A	200015
MB 410-201029/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-201029/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 201187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Dissolved	Water	Non-Digest Prep	200015
410-65020-2	PS-04	Dissolved	Water	Non-Digest Prep	200015
410-65020-3	BH-10	Dissolved	Water	Non-Digest Prep	200015
410-65020-4	BH-12	Dissolved	Water	Non-Digest Prep	200015
MB 410-201187/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-201187/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

QC Association Summary

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Metals

Analysis Batch: 201286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Dissolved	Water	7470A	201029
410-65020-2	PS-04	Dissolved	Water	7470A	201029
410-65020-3	BH-10	Dissolved	Water	7470A	201029
410-65020-4	BH-12	Dissolved	Water	7470A	201029
MB 410-201029/1-A	Method Blank	Total/NA	Water	7470A	201029
LCS 410-201029/2-A	Lab Control Sample	Total/NA	Water	7470A	201029

Prep Batch: 201601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-2	PS-04	Total Recoverable	Water	3005A	
MB 410-201601/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-201601/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 201919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Total Recoverable	Water	6010D	200946
410-65020-3	BH-10	Total Recoverable	Water	6010D	200946
410-65020-4	BH-12	Total Recoverable	Water	6010D	200946
MB 410-200946/1-A	Method Blank	Total Recoverable	Water	6010D	200946
LCS 410-200946/2-A	Lab Control Sample	Total Recoverable	Water	6010D	200946

Analysis Batch: 202480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-2	PS-04	Total Recoverable	Water	6010D	201601
MB 410-201601/1-A	Method Blank	Total Recoverable	Water	6010D	201601
LCS 410-201601/2-A	Lab Control Sample	Total Recoverable	Water	6010D	201601

Analysis Batch: 202920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-2	PS-04	Total Recoverable	Water	6010D	201601
MB 410-201601/1-A	Method Blank	Total Recoverable	Water	6010D	201601
LCS 410-201601/2-A	Lab Control Sample	Total Recoverable	Water	6010D	201601

Analysis Batch: 202924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Total Recoverable	Water	6010D	200946
410-65020-3	BH-10	Total Recoverable	Water	6010D	200946

Analysis Batch: 202925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Dissolved	Water	6010D	201187
410-65020-2	PS-04	Dissolved	Water	6010D	201187
410-65020-3	BH-10	Dissolved	Water	6010D	201187
410-65020-4	BH-12	Dissolved	Water	6010D	201187
MB 410-201187/1-A	Method Blank	Total/NA	Water	6010D	201187
LCS 410-201187/2-A	Lab Control Sample	Total/NA	Water	6010D	201187

Analysis Batch: 203044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Dissolved	Water	6010D	201187
410-65020-2	PS-04	Dissolved	Water	6010D	201187

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Metals (Continued)

Analysis Batch: 203044 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-3	BH-10	Dissolved	Water	6010D	201187
410-65020-4	BH-12	Dissolved	Water	6010D	201187
MB 410-201187/1-A	Method Blank	Total/NA	Water	6010D	201187
LCS 410-201187/2-A	Lab Control Sample	Total/NA	Water	6010D	201187

General Chemistry

Analysis Batch: 200799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Total/NA	Water	2340C-2011	
410-65020-2	PS-04	Total/NA	Water	2340C-2011	
410-65020-3	BH-10	Total/NA	Water	2340C-2011	
410-65020-4	BH-12	Total/NA	Water	2340C-2011	
MB 410-200799/6	Method Blank	Total/NA	Water	2340C-2011	
LCS 410-200799/7	Lab Control Sample	Total/NA	Water	2340C-2011	

Analysis Batch: 203558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65020-1	BH-20	Total/NA	Water	5310C-2011	
410-65020-2	PS-04	Total/NA	Water	5310C-2011	
410-65020-3	BH-10	Total/NA	Water	5310C-2011	
410-65020-4	BH-12	Total/NA	Water	5310C-2011	
MB 410-203558/6	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-203558/5	Lab Control Sample	Total/NA	Water	5310C-2011	
410-65020-1 MS	BH-20	Total/NA	Water	5310C-2011	
410-65020-1 DU	BH-20	Total/NA	Water	5310C-2011	

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Lab Chronicle

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-20

Lab Sample ID: 410-65020-1

Date Collected: 11/29/21 13:30

Matrix: Water

Date Received: 11/30/21 11:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	201416	12/03/21 23:40	K4WN	ELLE
Total/NA	Prep	3510C			201294	12/03/21 16:30	QQ3P	ELLE
Total/NA	Analysis	8270D		1	201628	12/06/21 00:15	P7EB	ELLE
Total/NA	Prep	3510C			201063	12/03/21 08:38	BLX5	ELLE
Total/NA	Analysis	8081B		1	201019	12/03/21 15:50	WN70	ELLE
Dissolved	Filtration	Filtration			200015	10/01/21 07:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201187	12/03/21 10:38	WBK6	ELLE
Dissolved	Analysis	6010D		1	203044	12/08/21 15:32	WJM9	ELLE
Dissolved	Filtration	Filtration			200015	10/01/21 07:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201187	12/03/21 10:38	WBK6	ELLE
Dissolved	Analysis	6010D		1	202925	12/08/21 11:46	WJM9	ELLE
Total Recoverable	Prep	3005A			200946	12/02/21 20:18	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	201919	12/06/21 12:37	WJM9	ELLE
Total Recoverable	Prep	3005A			200946	12/02/21 20:18	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	202924	12/08/21 11:37	WJM9	ELLE
Dissolved	Filtration	Filtration			200015	10/01/21 07:00	UDL9	ELLE
Dissolved	Prep	7470A			201029	12/03/21 06:31	UAMX	ELLE
Dissolved	Analysis	7470A		1	201286	12/03/21 14:18	UEFS	ELLE
Total/NA	Prep	7470A			200311	12/01/21 14:45	UJLA	ELLE
Total/NA	Analysis	7470A		1	200474	12/02/21 00:19	UEFS	ELLE
Total/NA	Analysis	2340C-2011		2.5	200799	12/02/21 12:50	USAE	ELLE
Total/NA	Analysis	5310C-2011		1	203558	12/08/21 21:29	KGQ6	ELLE

Client Sample ID: PS-04

Lab Sample ID: 410-65020-2

Date Collected: 11/29/21 13:55

Matrix: Water

Date Received: 11/30/21 11:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	201416	12/04/21 00:02	K4WN	ELLE
Total/NA	Prep	3510C			201294	12/03/21 16:30	QQ3P	ELLE
Total/NA	Analysis	8270D		1	201628	12/06/21 00:42	P7EB	ELLE
Total/NA	Prep	3510C			201063	12/03/21 08:38	BLX5	ELLE
Total/NA	Analysis	8081B		1	201019	12/03/21 16:01	WN70	ELLE
Dissolved	Filtration	Filtration			200015	10/01/21 07:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201187	12/03/21 10:38	WBK6	ELLE
Dissolved	Analysis	6010D		1	203044	12/08/21 15:22	WJM9	ELLE
Dissolved	Filtration	Filtration			200015	10/01/21 07:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201187	12/03/21 10:38	WBK6	ELLE
Dissolved	Analysis	6010D		1	202925	12/08/21 11:30	WJM9	ELLE
Total Recoverable	Prep	3005A			201601	12/05/21 10:33	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	202920	12/08/21 12:25	WJM9	ELLE
Total Recoverable	Prep	3005A			201601	12/05/21 10:33	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	202480	12/07/21 12:24	WJM9	ELLE

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: PS-04

Lab Sample ID: 410-65020-2

Date Collected: 11/29/21 13:55

Matrix: Water

Date Received: 11/30/21 11:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	Filtration			200015	10/01/21 07:00	UDL9	ELLE
Dissolved	Prep	7470A			201029	12/03/21 06:31	UAMX	ELLE
Dissolved	Analysis	7470A		1	201286	12/03/21 14:20	UEFS	ELLE
Total/NA	Prep	7470A			200311	12/01/21 14:45	UJLA	ELLE
Total/NA	Analysis	7470A		1	200474	12/02/21 00:13	UEFS	ELLE
Total/NA	Analysis	2340C-2011		2.5	200799	12/02/21 12:58	USAE	ELLE
Total/NA	Analysis	5310C-2011		1	203558	12/08/21 22:17	KGQ6	ELLE

Client Sample ID: BH-10

Lab Sample ID: 410-65020-3

Date Collected: 11/29/21 13:10

Matrix: Water

Date Received: 11/30/21 11:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	201416	12/04/21 00:24	K4WN	ELLE
Total/NA	Prep	3510C			201294	12/03/21 16:30	QQ3P	ELLE
Total/NA	Analysis	8270D		1	201628	12/06/21 01:10	P7EB	ELLE
Total/NA	Prep	3510C			201063	12/03/21 08:38	BLX5	ELLE
Total/NA	Analysis	8081B		1	201019	12/03/21 16:12	WN7O	ELLE
Dissolved	Filtration	Filtration			200015	10/01/21 07:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201187	12/03/21 10:38	WBK6	ELLE
Dissolved	Analysis	6010D		1	203044	12/08/21 15:29	WJM9	ELLE
Dissolved	Filtration	Filtration			200015	10/01/21 07:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201187	12/03/21 10:38	WBK6	ELLE
Dissolved	Analysis	6010D		1	202925	12/08/21 11:43	WJM9	ELLE
Total Recoverable	Prep	3005A			200946	12/02/21 20:18	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	201919	12/06/21 13:15	WJM9	ELLE
Total Recoverable	Prep	3005A			200946	12/02/21 20:18	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	202924	12/08/21 11:50	WJM9	ELLE
Dissolved	Filtration	Filtration			200015	10/01/21 07:00	UDL9	ELLE
Dissolved	Prep	7470A			201029	12/03/21 06:31	UAMX	ELLE
Dissolved	Analysis	7470A		1	201286	12/03/21 14:22	UEFS	ELLE
Total/NA	Prep	7470A			200311	12/01/21 14:45	UJLA	ELLE
Total/NA	Analysis	7470A		1	200474	12/02/21 00:15	UEFS	ELLE
Total/NA	Analysis	2340C-2011		2.5	200799	12/02/21 13:05	USAE	ELLE
Total/NA	Analysis	5310C-2011		1	203558	12/08/21 22:33	KGQ6	ELLE

Client Sample ID: BH-12

Lab Sample ID: 410-65020-4

Date Collected: 11/29/21 12:35

Matrix: Water

Date Received: 11/30/21 11:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	201416	12/04/21 00:46	K4WN	ELLE
Total/NA	Prep	3510C			201294	12/03/21 16:30	QQ3P	ELLE
Total/NA	Analysis	8270D		1	201628	12/06/21 01:37	P7EB	ELLE

Lab Chronicle

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Client Sample ID: BH-12

Lab Sample ID: 410-65020-4

Date Collected: 11/29/21 12:35

Matrix: Water

Date Received: 11/30/21 11:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			201063	12/03/21 08:38	BLX5	ELLE
Total/NA	Analysis	8081B		1	201019	12/03/21 16:23	WN70	ELLE
Dissolved	Filtration	Filtration			200015	10/01/21 07:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201187	12/03/21 10:38	WBK6	ELLE
Dissolved	Analysis	6010D		1	203044	12/08/21 15:19	WJM9	ELLE
Dissolved	Filtration	Filtration			200015	10/01/21 07:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201187	12/03/21 10:38	WBK6	ELLE
Dissolved	Analysis	6010D		1	202925	12/08/21 11:26	WJM9	ELLE
Total Recoverable	Prep	3005A			200946	12/02/21 20:18	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	201919	12/06/21 13:18	WJM9	ELLE
Dissolved	Filtration	Filtration			200015	10/01/21 07:00	UDL9	ELLE
Dissolved	Prep	7470A			201029	12/03/21 06:31	UAMX	ELLE
Dissolved	Analysis	7470A		1	201286	12/03/21 14:24	UEFS	ELLE
Total/NA	Prep	7470A			200311	12/01/21 14:45	UJLA	ELLE
Total/NA	Analysis	7470A		1	200474	12/02/21 00:25	UEFS	ELLE
Total/NA	Analysis	2340C-2011		2.5	200799	12/02/21 13:31	USAE	ELLE
Total/NA	Analysis	5310C-2011		1	203558	12/08/21 22:49	KGQ6	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22

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Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
6010D	Metals (ICP)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
2340C-2011	Hardness, Total	SM	ELLE
5310C-2011	Total Organic Carbon/Persulfate - Ultrav	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

DRAFT

Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65020-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-65020-1	BH-20	Water	11/29/21 13:30	11/30/21 11:15
410-65020-2	PS-04	Water	11/29/21 13:55	11/30/21 11:15
410-65020-3	BH-10	Water	11/29/21 13:10	11/30/21 11:15
410-65020-4	BH-12	Water	11/29/21 12:35	11/30/21 11:15

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LC

Chain of Custody Record

Baltimore #201

eurofins Environment Testing America

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410-65020 Chain of Custody

Sampler <i>Roux</i>	Lab PM Tessier, Kelly	Carrier Tracking No(s)	COC No 410-38573-12089 2
Phone <i>450-473-8800</i>	E-Mail kelly.tessier@eurofinset.com	State of Origin	Page: Page 2 of 2

Company Roux Associates, Inc	PWSID	Analysis Requested		Job #:									
Address 402 Heron Drive	Due Date Requested:	<table border="1"> <tr><td>6010D, 7471B, 8081B, 8082A, 8270D, Lloyd_Kahn, Molature</td></tr> <tr><td>8260C - TCL VOCs SOM01.2</td></tr> <tr><td>D422 - Grain Size</td></tr> <tr><td>8260C - TCL 1,2 VOCs</td></tr> <tr><td>8081B, 8270D</td></tr> <tr><td>6010D, 7470A</td></tr> <tr><td>6010D, 7470A</td></tr> <tr><td>5310C - Total Organic Carbon</td></tr> <tr><td>2340C - Hardness, Total (mg/l as CaCO3)</td></tr> </table>	6010D, 7471B, 8081B, 8082A, 8270D, Lloyd_Kahn, Molature	8260C - TCL VOCs SOM01.2	D422 - Grain Size	8260C - TCL 1,2 VOCs	8081B, 8270D	6010D, 7470A	6010D, 7470A	5310C - Total Organic Carbon	2340C - Hardness, Total (mg/l as CaCO3)	Preservation Codes:	
6010D, 7471B, 8081B, 8082A, 8270D, Lloyd_Kahn, Molature													
8260C - TCL VOCs SOM01.2													
D422 - Grain Size													
8260C - TCL 1,2 VOCs													
8081B, 8270D													
6010D, 7470A													
6010D, 7470A													
5310C - Total Organic Carbon													
2340C - Hardness, Total (mg/l as CaCO3)													
City Logan Township	TAT Requested (days):	A - HCL	M - Hexane										
State, Zip NJ, 08085	Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No	B - NaOH	N - None										
Phone 609-504-6656(Tel)	PO #	C - Zn Acetate	O - AsNaO2										
Email asweeney@rouxinc.com	Purchase Order Requested	D - Nitric Acid	P - Na2O4S										
Project Name Mueser - Alexandria, VA	WO # 2549 0012P000	E - NaHSO4	Q - Na2SO3										
Site	Project # 41008456	F - MeOH	R - Na2S2O3										
	SSOW#	G - Amchlor	S - H2SO4										
		H - Ascorbic Acid	T - TSP Dodecahydrate										
		I - Ice	U - Acetone										
		J - DI Water	V - MCAA										
		K - EDTA	W - pH 4-5										
		L - EDA	Z - other (specify)										
		Other:											

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	6010D, 7471B, 8081B, 8082A, 8270D, Lloyd_Kahn, Molature	8260C - TCL VOCs SOM01.2	D422 - Grain Size	8260C - TCL 1,2 VOCs	8081B, 8270D	6010D, 7470A	6010D, 7470A	5310C - Total Organic Carbon	2340C - Hardness, Total (mg/l as CaCO3)	Special Instructions/Note:
BH-20	11/29/21	13:30	G	SW	X			X	X	X	X	X	X	
PS-04	11/29/21	13:55	G	SW	X			X	X	X	X	X	X	
BH-10	11/29/21	13:10	G	SW	X			X	X	X	X	X	X	
BH-12	11/29/21	12:35	G	SW	X			X	X	X	X	X	X	

Possible Hazard Identification: Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): Return To Client Disposal By Lab Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: <i>[Signature]</i>	Date/Time: <i>11/29/21 @</i>	Company: <i>[Signature]</i>	Received by: <i>[Signature]</i> Date/Time: <i>11/29/21 11:00</i> Company: <i>E105-12</i>
Relinquished by: <i>[Signature]</i>	Date/Time: <i>11/29/21 12:00</i>	Company: <i>[Signature]</i>	Received by: <i>[Signature]</i> Date/Time: <i>[Signature]</i> Company: <i>[Signature]</i>
Relinquished by: <i>[Signature]</i>	Date/Time: <i>[Signature]</i>	Company: <i>[Signature]</i>	Received by: <i>[Signature]</i> Date/Time: <i>11/30/21 11:15</i> Company: <i>[Signature]</i>

Custody Seals Intact: Yes No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: *5.4*

Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-65020-1

Login Number: 65020

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Bryan, Debra A

Question	Answer	Comment
The cooler's custody seal is intact.	True	
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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-65068-1

Client Project/Site: Mueser - Alexandria, VA

For:

Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
12/14/2021 12:45:34 PM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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A handwritten signature in cursive script that reads "Kelly Tessier".

Kelly Tessier
Project Manager
12/14/2021 12:45:34 PM



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Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

Glossary (Continued)

Abbreviation **These commonly used abbreviations may or may not be present in this report.**

POS	Positive / Present
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

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Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

Job ID: 410-65068-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-65068-1

Receipt

The sample was received on 11/30/2021 6:00 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°C

GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-202548 recovered above the upper control limit for 1,1-Dichloroethene, Bromomethane, Carbon tetrachloride, Bromochloromethane, cis-1,3-Dichloropropene, Methylcyclohexane and trans-1,2-Dichloroethene. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: Surrogate recoveries for 1,2-Dichloroethane-d4 (Surr) and Dibromofluoromethane (Surr) were outside acceptance criteria, biased high, for the continuing calibration verification (CCV) on analytical batch 410-202548. The surrogate recoveries were within specification for the associated samples: BH-10 (14.5-15.0) (410-65068-1).

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: BH-10 (14.5-15.0) (410-65068-1). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 410-202038 was below the method criteria for the following analyte(s): Hexachlorocyclopentadiene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

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

PCBs

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

Pesticides

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

Metals

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

General Chemistry

Method Lloyd_Kahn_Mod: Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis. BH-10 (14.5-15.0) (410-65068-1), (180-130708-C-4), (180-130708-C-4 MS) and (180-130708-C-4 MSD)

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

Geotechnical

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

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

Client Sample ID: BH-10 (14.5-15.0)

Lab Sample ID: 410-65068-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	100	J cn	660	80	ug/Kg	50	✳	8260C	Total/NA
Vinyl chloride	180	J cn	660	80	ug/Kg	50	✳	8260C	Total/NA
Methyl acetate	470	J cn	660	130	ug/Kg	50	✳	8260C	Total/NA
1,1'-Biphenyl	82	J cn	120	57	ug/Kg	1	✳	8270D	Total/NA
2-Methylnaphthalene	530	cn	57	17	ug/Kg	1	✳	8270D	Total/NA
4-Methylphenol	170	cn	170	57	ug/Kg	1	✳	8270D	Total/NA
Acenaphthene	650	cn	57	11	ug/Kg	1	✳	8270D	Total/NA
Acenaphthylene	330	cn	57	14	ug/Kg	1	✳	8270D	Total/NA
Anthracene	560	cn	57	11	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	1300	cn	57	11	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]pyrene	1100	cn	57	11	ug/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	1500	cn	57	11	ug/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	710	cn	57	11	ug/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	550	cn	57	11	ug/Kg	1	✳	8270D	Total/NA
Carbazole	91	J cn	120	57	ug/Kg	1	✳	8270D	Total/NA
Chrysene	1400	cn	57	11	ug/Kg	1	✳	8270D	Total/NA
Dibenz(a,h)anthracene	210	cn	57	23	ug/Kg	1	✳	8270D	Total/NA
Dibenzofuran	280	cn	120	57	ug/Kg	1	✳	8270D	Total/NA
Fluoranthene	2800	cn	57	11	ug/Kg	1	✳	8270D	Total/NA
Fluorene	530	cn	57	11	ug/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	630	cn	57	14	ug/Kg	1	✳	8270D	Total/NA
Naphthalene	450	cn	57	23	ug/Kg	1	✳	8270D	Total/NA
Phenanthrene	2200	cn	57	14	ug/Kg	1	✳	8270D	Total/NA
Pyrene	2500	cn	57	11	ug/Kg	1	✳	8270D	Total/NA
beta-BHC (2C)	55	p	34	15	ug/Kg	20	✳	8081B	Total/NA
PCB-1254 (2C)	80		29	11	ug/Kg	1	✳	8082A	Total/NA
PCB-1260 (2C)	76		29	11	ug/Kg	1	✳	8082A	Total/NA
Aluminum	25000		25	13	mg/Kg	1	✳	6010D	Total/NA
Arsenic	33		3.8	1.8	mg/Kg	1	✳	6010D	Total/NA
Barium	210		0.63	0.19	mg/Kg	1	✳	6010D	Total/NA
Beryllium	1.1		0.63	0.13	mg/Kg	1	✳	6010D	Total/NA
Cadmium	4.0		0.63	0.13	mg/Kg	1	✳	6010D	Total/NA
Calcium	4100		63	15	mg/Kg	1	✳	6010D	Total/NA
Chromium	150		1.9	0.23	mg/Kg	1	✳	6010D	Total/NA
Cobalt	22		0.63	0.18	mg/Kg	1	✳	6010D	Total/NA
Copper	130		2.5	0.97	mg/Kg	1	✳	6010D	Total/NA
Iron	41000		130	39	mg/Kg	5	✳	6010D	Total/NA
Lead	120		1.9	0.75	mg/Kg	1	✳	6010D	Total/NA
Magnesium	4400	^5- ^2	13	5.0	mg/Kg	1	✳	6010D	Total/NA
Manganese	630		1.3	0.65	mg/Kg	1	✳	6010D	Total/NA
Nickel	41		1.3	0.33	mg/Kg	1	✳	6010D	Total/NA
Potassium	2500		63	26	mg/Kg	1	✳	6010D	Total/NA
Silver	4.3	^5-	1.3	0.50	mg/Kg	1	✳	6010D	Total/NA
Sodium	97	J	130	58	mg/Kg	1	✳	6010D	Total/NA
Zinc	490		2.5	1.3	mg/Kg	1	✳	6010D	Total/NA
Vanadium	57		1.3	0.54	mg/Kg	1	✳	6010D	Total/NA
Mercury	0.95		0.10	0.042	mg/Kg	1	✳	7471B	Total/NA
Total Organic Carbon - Duplicates	28000	cn	1700	1600	mg/Kg	1	✳	EPA-Lloyd Kahn	Total/NA
Gravel	31.1		1.0	0.5	%	1		D422	Total/NA
Sand	16.6		1.0	0.5	%	1		D422	Total/NA
Silt	37.3		1.0	0.5	%	1		D422	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

Client Sample ID: BH-10 (14.5-15.0) (Continued)

Lab Sample ID: 410-65068-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Clay	15.0		1.0	0.5	%	1		D422	Total/NA
75 mm	100.0		1.0	0.5	% Passing	1		D422	Total/NA
37.5 mm	100.0		1.0	0.5	% Passing	1		D422	Total/NA
19 mm	78.5		1.0	0.5	% Passing	1		D422	Total/NA
4.75 mm	68.9		1.0	0.5	% Passing	1		D422	Total/NA
3.35 mm	66.0		1.0	0.5	% Passing	1		D422	Total/NA
2.36 mm	63.5		1.0	0.5	% Passing	1		D422	Total/NA
1.18 mm	62.2		1.0	0.5	% Passing	1		D422	Total/NA
0.6 mm	59.7		1.0	0.5	% Passing	1		D422	Total/NA
0.3 mm	57.0		1.0	0.5	% Passing	1		D422	Total/NA
0.15 mm	54.2		1.0	0.5	% Passing	1		D422	Total/NA
0.064 mm	50.5		1.0	0.5	% Passing	1		D422	Total/NA
0.05 mm	48.0		1.0	0.5	% Passing	1		D422	Total/NA
0.02 mm	35.0		1.0	0.5	% Passing	1		D422	Total/NA
0.005 mm	15.0		1.0	0.5	% Passing	1		D422	Total/NA
0.002 mm	10.5		1.0	0.5	% Passing	1		D422	Total/NA
0.001 mm	9.0		1.0	0.5	% Passing	1		D422	Total/NA
0.075 mm	52.3		1.0	0.5	% Passing	1		D422	Total/NA

DRAFT

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

Client Sample ID: BH-10 (14.5-15.0)

Lab Sample ID: 410-65068-1

Date Collected: 11/30/21 13:45

Matrix: Solid

Date Received: 11/30/21 18:00

Percent Solids: 58.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	53	U cn	660	53	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
trans-1,3-Dichloropropene	66	U cn	660	66	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Ethylbenzene	53	U cn	660	53	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Styrene	53	U cn	660	53	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
1,4-Dichlorobenzene	53	U cn	660	53	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
1,2-Dibromoethane	53	U cn	660	53	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
1,2-Dichloroethane	80	U cn	660	80	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
4-Methyl-2-pentanone	130	U cn	1300	130	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Methylcyclohexane	80	U cn	660	80	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Toluene	100	J cn	660	80	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Chlorobenzene	66	U cn	660	66	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Cyclohexane	66	U cn	660	66	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
1,2,4-Trichlorobenzene	660	U cn	1300	660	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
1,4-Dioxane	4900	U cn	33000	4900	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Dibromochloromethane	270	U cn	660	270	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Tetrachloroethene	66	U cn	660	66	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
cis-1,2-Dichloroethene	66	U cn	660	66	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
trans-1,2-Dichloroethene	66	U cn	660	66	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Methyl tertiary butyl ether	66	U cn	660	66	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
m&p-Xylene	130	U cn	660	130	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
1,3-Dichlorobenzene	66	U cn	660	66	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Carbon tetrachloride	270	U cn	660	270	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
2-Hexanone	130	U cn	1300	130	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Acetone	800	U cn	2700	800	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Chloroform	80	U cn	660	80	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Benzene	66	U cn	660	66	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
1,1,1-Trichloroethane	80	U cn	660	80	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Bromomethane	93	U cn	660	93	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Chloromethane	80	U cn	660	80	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Bromochloromethane	80	U cn	660	80	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Chloroethane	130	U cn	660	130	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Vinyl chloride	180	J cn	660	80	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Methylene Chloride	270	U cn	660	270	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Carbon disulfide	80	U cn	660	80	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Bromoform	660	U cn	1300	660	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Bromodichloromethane	53	U cn	660	53	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
1,1-Dichloroethane	66	U cn	660	66	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
1,1-Dichloroethene	66	U cn	660	66	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Trichlorofluoromethane	93	U cn	660	93	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Dichlorodifluoromethane	80	U cn	660	80	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Freon 113	80	U cn	1300	80	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
1,2-Dichloropropane	66	U cn	660	66	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
2-Butanone	270	U cn	1300	270	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
1,1,2-Trichloroethane	66	U cn	660	66	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Trichloroethene	66	U cn	660	66	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
Methyl acetate	470	J cn	660	130	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
1,1,2,2-Tetrachloroethane	53	U cn	660	53	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
1,2,3-Trichlorobenzene	660	U cn	1300	660	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50
o-Xylene	53	U cn	660	53	ug/Kg	✳	11/30/21 21:25	12/08/21 05:53	50

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Client Sample ID: BH-10 (14.5-15.0)

Lab Sample ID: 410-65068-1

Date Collected: 11/30/21 13:45

Matrix: Solid

Date Received: 11/30/21 18:00

Percent Solids: 58.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	66	U cn	660	66	ug/Kg	☼	11/30/21 21:25	12/08/21 05:53	50
1,2-Dibromo-3-Chloropropane	130	U cn	660	130	ug/Kg	☼	11/30/21 21:25	12/08/21 05:53	50
Isopropylbenzene	53	U cn	660	53	ug/Kg	☼	11/30/21 21:25	12/08/21 05:53	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104	cn	54 - 135				11/30/21 21:25	12/08/21 05:53	50
4-Bromofluorobenzene (Surr)	102	cn	50 - 131				11/30/21 21:25	12/08/21 05:53	50
Dibromofluoromethane (Surr)	96	cn	50 - 141				11/30/21 21:25	12/08/21 05:53	50
Toluene-d8 (Surr)	95	cn	52 - 141				11/30/21 21:25	12/08/21 05:53	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	82	J cn	120	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
1,2,4,5-Tetrachlorobenzene	57	U cn	120	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
2,2'-oxybis[1-chloropropane]	68	U cn	150	68	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
2,3,4,6-Tetrachlorophenol	230	U cn	570	230	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
2,4,5-Trichlorophenol	57	U cn	120	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
2,4,6-Trichlorophenol	57	U cn	120	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
2,4-Dichlorophenol	68	U cn	150	68	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
2,4-Dimethylphenol	57	U cn	120	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
2,4-Dinitrophenol	570	U cn	3400	570	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
2,4-Dinitrotoluene	110	U cn	570	110	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
2,6-Dinitrotoluene	57	U cn	120	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
2-Chloronaphthalene	45	U cn	110	45	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
2-Chlorophenol	57	U cn	120	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
2-Methylnaphthalene	530	cn	57	17	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
2-Methylphenol	68	U cn	170	68	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
2-Nitroaniline	57	U cn	170	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
2-Nitrophenol	68	U cn	170	68	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
3,3'-Dichlorobenzidine	110	U cn	570	110	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
3-Nitroaniline	110	U cn	570	110	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
4,6-Dinitro-2-methylphenol	570	U cn	1700	570	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
4-Bromophenyl-phenylether	57	U cn	120	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
4-Chloro-3-methylphenol	68	U cn	170	68	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
4-Methylphenol	170	cn	170	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
4-Nitroaniline	110	U cn	570	110	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
4-Nitrophenol	570	U cn	1700	570	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Acenaphthene	650	cn	57	11	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Acenaphthylene	330	cn	57	14	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Acetophenone	57	U cn	170	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Anthracene	560	cn	57	11	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Atrazine	230	U cn	570	230	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Benzaldehyde	110	U cn	570	110	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Benzo[a]anthracene	1300	cn	57	11	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Benzo[a]pyrene	1100	cn	57	11	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Benzo[b]fluoranthene	1500	cn	57	11	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Benzo[g,h,i]perylene	710	cn	57	11	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Benzo[k]fluoranthene	550	cn	57	11	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Bis(2-chloroethoxy)methane	57	U cn	120	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Bis(2-chloroethyl)ether	57	U cn	120	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1

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Lab Sample ID: 410-65068-1

Date Collected: 11/30/21 13:45

Matrix: Solid

Date Received: 11/30/21 18:00

Percent Solids: 58.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	230	U cn	570	230	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Butylbenzylphthalate	230	U cn	570	230	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Caprolactam	110	U cn	570	110	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Carbazole	91	J cn	120	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Chrysene	1400	cn	57	11	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Di-n-butyl phthalate	230	U cn	570	230	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Di-n-octyl phthalate	230	U cn	570	230	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Dibenz(a,h)anthracene	210	cn	57	23	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Dibenzofuran	280	cn	120	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Diethyl phthalate	230	U cn	570	230	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Dimethyl phthalate	230	U cn	570	230	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Fluoranthene	2800	cn	57	11	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Fluorene	530	cn	57	11	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Hexachlorobenzene	23	U cn	57	23	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Hexachlorobutadiene	68	U cn	170	68	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Hexachlorocyclopentadiene	570	U cn	1700	570	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Hexachloroethane	110	U cn	570	110	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Indeno[1,2,3-cd]pyrene	630	cn	57	14	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Isophorone	57	U cn	230	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
N-Nitrosodi-n-propylamine	110	U cn	230	110	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
N-Nitrosodiphenylamine	57	U cn	120	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Naphthalene	450	cn	57	23	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Nitrobenzene	57	U cn	120	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Phenanthrene	2200	cn	57	14	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Phenol	57	U cn	120	57	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Pyrene	2500	cn	57	11	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1
Pentachlorophenol	230	U cn	570	230	ug/Kg	☼	12/06/21 09:27	12/07/21 03:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	71	cn	45 - 108	12/06/21 09:27	12/07/21 03:45	1
Nitrobenzene-d5 (Surr)	52	cn	32 - 97	12/06/21 09:27	12/07/21 03:45	1
2-Fluorophenol (Surr)	63	cn	26 - 96	12/06/21 09:27	12/07/21 03:45	1
2-Fluorobiphenyl (Surr)	65	cn	39 - 100	12/06/21 09:27	12/07/21 03:45	1
2,4,6-Tribromophenol (Surr)	62	cn	13 - 121	12/06/21 09:27	12/07/21 03:45	1
Phenol-d5 (Surr)	61	cn	27 - 104	12/06/21 09:27	12/07/21 03:45	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	5.7	U	28	5.7	ug/Kg	☼	12/12/21 17:45	12/13/21 09:09	20
alpha-BHC (1C)	5.7	U	28	5.7	ug/Kg	☼	12/12/21 17:45	12/13/21 09:09	20
alpha-Chlordane (2C)	5.7	U	28	5.7	ug/Kg	☼	12/12/21 17:45	12/13/21 09:09	20
beta-BHC (2C)	55	p	34	15	ug/Kg	☼	12/12/21 17:45	12/13/21 09:09	20
delta-BHC (1C)	15	U	34	15	ug/Kg	☼	12/12/21 17:45	12/13/21 09:09	20
Dieldrin (1C)	11	U	57	11	ug/Kg	☼	12/12/21 17:45	12/13/21 09:09	20
Endosulfan I (2C)	7.4	U	28	7.4	ug/Kg	☼	12/12/21 17:45	12/13/21 09:09	20
Endosulfan II (1C)	37	U	78	37	ug/Kg	☼	12/12/21 17:45	12/13/21 09:09	20
Endosulfan sulfate (1C)	11	U	57	11	ug/Kg	☼	12/12/21 17:45	12/13/21 09:09	20
Endrin (1C)	23	U	57	23	ug/Kg	☼	12/12/21 17:45	12/13/21 09:09	20
Endrin aldehyde (1C)	11	U	57	11	ug/Kg	☼	12/12/21 17:45	12/13/21 09:09	20
Endrin ketone (1C)	20	U	67	20	ug/Kg	☼	12/12/21 17:45	12/13/21 09:09	20

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Date Collected: 11/30/21 13:45

Matrix: Solid

Date Received: 11/30/21 18:00

Percent Solids: 58.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane) (1C)	7.1	U	28	7.1	ug/Kg	✱	12/12/21 17:45	12/13/21 09:09	20
gamma-Chlordane (2C)	8.4	U	28	8.4	ug/Kg	✱	12/12/21 17:45	12/13/21 09:09	20
Heptachlor (2C)	10	U	28	10	ug/Kg	✱	12/12/21 17:45	12/13/21 09:09	20
Heptachlor epoxide (2C)	5.7	U	28	5.7	ug/Kg	✱	12/12/21 17:45	12/13/21 09:09	20
Methoxychlor (1C)	61	U	230	61	ug/Kg	✱	12/12/21 17:45	12/13/21 09:09	20
Toxaphene (1C)	470	U	1100	470	ug/Kg	✱	12/12/21 17:45	12/13/21 09:09	20
p,p'-DDD (1C)	11	U	57	11	ug/Kg	✱	12/12/21 17:45	12/13/21 09:09	20
p,p'-DDE (1C)	11	U	57	11	ug/Kg	✱	12/12/21 17:45	12/13/21 09:09	20
p,p'-DDT (1C)	27	U	57	27	ug/Kg	✱	12/12/21 17:45	12/13/21 09:09	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	87		54 - 143				12/12/21 17:45	12/13/21 09:09	20
DCB Decachlorobiphenyl (Surr) (2C)	86		54 - 143				12/12/21 17:45	12/13/21 09:09	20
Tetrachloro-m-xylene (Surr) (1C)	47	p	20 - 131				12/12/21 17:45	12/13/21 09:09	20
Tetrachloro-m-xylene (Surr) (2C)	70		20 - 131				12/12/21 17:45	12/13/21 09:09	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	8.9	U	29	8.9	ug/Kg	✱	12/06/21 09:16	12/06/21 19:15	1
PCB-1221 (2C)	8.9	U	29	8.9	ug/Kg	✱	12/06/21 09:16	12/06/21 19:15	1
PCB-1232 (2C)	8.9	U	29	8.9	ug/Kg	✱	12/06/21 09:16	12/06/21 19:15	1
PCB-1242 (2C)	8.9	U	29	8.9	ug/Kg	✱	12/06/21 09:16	12/06/21 19:15	1
PCB-1248 (2C)	8.9	U	29	8.9	ug/Kg	✱	12/06/21 09:16	12/06/21 19:15	1
PCB-1254 (2C)	80		29	11	ug/Kg	✱	12/06/21 09:16	12/06/21 19:15	1
PCB-1260 (2C)	76		29	11	ug/Kg	✱	12/06/21 09:16	12/06/21 19:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	71		45 - 143				12/06/21 09:16	12/06/21 19:15	1
DCB Decachlorobiphenyl (Surr) (2C)	100		45 - 143				12/06/21 09:16	12/06/21 19:15	1
Tetrachloro-m-xylene (1C)	67		53 - 140				12/06/21 09:16	12/06/21 19:15	1
Tetrachloro-m-xylene (2C)	85		53 - 140				12/06/21 09:16	12/06/21 19:15	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.1	U	6.3	2.1	mg/Kg	✱	12/02/21 12:49	12/10/21 11:29	1
Aluminum	25000		25	13	mg/Kg	✱	12/02/21 12:49	12/09/21 11:46	1
Arsenic	33		3.8	1.8	mg/Kg	✱	12/02/21 12:49	12/09/21 11:46	1
Barium	210		0.63	0.19	mg/Kg	✱	12/02/21 12:49	12/09/21 11:46	1
Beryllium	1.1		0.63	0.13	mg/Kg	✱	12/02/21 12:49	12/09/21 11:46	1
Cadmium	4.0		0.63	0.13	mg/Kg	✱	12/02/21 12:49	12/09/21 11:46	1
Calcium	4100		63	15	mg/Kg	✱	12/02/21 12:49	12/09/21 11:46	1
Chromium	150		1.9	0.23	mg/Kg	✱	12/02/21 12:49	12/09/21 11:46	1
Cobalt	22		0.63	0.18	mg/Kg	✱	12/02/21 12:49	12/09/21 11:46	1
Copper	130		2.5	0.97	mg/Kg	✱	12/02/21 12:49	12/10/21 11:29	1
Iron	41000		130	39	mg/Kg	✱	12/02/21 12:49	12/10/21 11:40	5
Lead	120		1.9	0.75	mg/Kg	✱	12/02/21 12:49	12/09/21 11:46	1
Magnesium	4400	^5- ^2	13	5.0	mg/Kg	✱	12/02/21 12:49	12/09/21 11:46	1
Manganese	630		1.3	0.65	mg/Kg	✱	12/02/21 12:49	12/09/21 11:46	1
Nickel	41		1.3	0.33	mg/Kg	✱	12/02/21 12:49	12/09/21 11:46	1
Potassium	2500		63	26	mg/Kg	✱	12/02/21 12:49	12/09/21 11:46	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

Client Sample ID: BH-10 (14.5-15.0)

Lab Sample ID: 410-65068-1

Date Collected: 11/30/21 13:45

Matrix: Solid

Date Received: 11/30/21 18:00

Percent Solids: 58.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	1.9	U	6.3	1.9	mg/Kg	☼	12/02/21 12:49	12/09/21 11:46	1
Silver	4.3	^5-	1.3	0.50	mg/Kg	☼	12/02/21 12:49	12/09/21 11:46	1
Sodium	97	J	130	58	mg/Kg	☼	12/02/21 12:49	12/09/21 11:46	1
Thallium	1.6	U	3.8	1.6	mg/Kg	☼	12/02/21 12:49	12/09/21 11:46	1
Zinc	490		2.5	1.3	mg/Kg	☼	12/02/21 12:49	12/09/21 11:46	1
Vanadium	57		1.3	0.54	mg/Kg	☼	12/02/21 12:49	12/09/21 11:46	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.95		0.10	0.042	mg/Kg	☼	12/02/21 21:30	12/07/21 22:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	41.1		1.0	1.0	%			12/02/21 10:51	1

General Chemistry

Lab: Eurofins TestAmerica, Pittsburgh

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	28000	cn	1700	1600	mg/Kg	☼		12/06/21 17:24	1

Method: D422 - Grain Size

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	31.1		1.0	0.5	%			12/02/21 11:35	1
Sand	16.6		1.0	0.5	%			12/02/21 11:35	1
Silt	37.3		1.0	0.5	%			12/02/21 11:35	1
Clay	15.0		1.0	0.5	%			12/02/21 11:35	1
75 mm	100.0		1.0	0.5	% Passing			12/02/21 11:35	1
37.5 mm	100.0		1.0	0.5	% Passing			12/02/21 11:35	1
19 mm	78.5		1.0	0.5	% Passing			12/02/21 11:35	1
4.75 mm	68.9		1.0	0.5	% Passing			12/02/21 11:35	1
3.35 mm	66.0		1.0	0.5	% Passing			12/02/21 11:35	1
2.36 mm	63.5		1.0	0.5	% Passing			12/02/21 11:35	1
1.18 mm	62.2		1.0	0.5	% Passing			12/02/21 11:35	1
0.6 mm	59.7		1.0	0.5	% Passing			12/02/21 11:35	1
0.3 mm	57.0		1.0	0.5	% Passing			12/02/21 11:35	1
0.15 mm	54.2		1.0	0.5	% Passing			12/02/21 11:35	1
0.064 mm	50.5		1.0	0.5	% Passing			12/02/21 11:35	1
0.05 mm	48.0		1.0	0.5	% Passing			12/02/21 11:35	1
0.02 mm	35.0		1.0	0.5	% Passing			12/02/21 11:35	1
0.005 mm	15.0		1.0	0.5	% Passing			12/02/21 11:35	1
0.002 mm	10.5		1.0	0.5	% Passing			12/02/21 11:35	1
0.001 mm	9.0		1.0	0.5	% Passing			12/02/21 11:35	1
0.075 mm	52.3		1.0	0.5	% Passing			12/02/21 11:35	1

0.75 Inch	555.56	555.55
#4	503.23	502.98
#6	482.60	482.38
#8	430.24	429.50
PAN	541.61	385.41

Sieve Size (Mr)	Tare+Sample Wt.(g)	Tare Weight (g)
#16	452.06	451.97
#30	293.63	293.61
#50	265.70	265.66
#100	318.37	318.34
#200	216.71	216.70
PAN	385.39	385.39

Grain Size Classification	
% Gravel	31.12
% Sand	16.55
% Silt	37.33
% Clay	15
% Clay + Silt	—

Balance ID#: 18954 Oven ID# 18961
 Oven Date/Time/Temp In: 12-10-21 10:00 1042 Oven Date/Time/Temp Out: 12-13-21 @ 0700 104

Moisture

Tare Weight (g)	Sample Weight (g)	Oven Dry Wt. (g)
0.8045	5.3964	5.9504
		6.1119

Init./Emp. #: 448 1198
 #3 448 1198
 12-13-21

Bulk Density

Tare Weight (g)	Sample Weight (g)	DI H ₂ O+Spie Wt. (g)
66.1647	9.0296	105.1776

Init./Emp. #: 448 1198

Hydrometer Readings Sample Wt. 50.03 Hydrometer ID #: 237666 Init./Emp #: 448 1198

Time	Temp	Reading
2 minutes	22	1.023
5 minutes	22	1.021
15 minutes	22	1.017
30 minutes	22	1.014
60 minutes	22	1.011
250 minutes	22	1.007
1440 minutes	22	1.006

Comments: _____

Oven ID#: 1168
 Oven Date/Time/Temp In: 12-10-21
 Oven Date/Time/Temp Out: 12-13-21

Particle Size Distribution

Sample:	Date:	Init/Emp #
410-65049-D-3	12/2/21	VS/41049

Percent Passing	Particle Size
100.00	75
100.00	37.5
78.54	19
68.88	4.75
65.99	3.35
63.49	2.36
62.15	1.18
59.67	0.6
56.96	0.3
54.21	0.15
52.33	0.075
43.94	0.03722
36.13	0.02441
33.53	0.01427
25.72	0.01043
20.51	0.00752
12.70	0.00379
10.10	0.00160

- * Used for line 1
- ** Used for line 2
- *** Used for lines 1 and 2
- + Calculated from line 1
- ++ Calculated from line 2

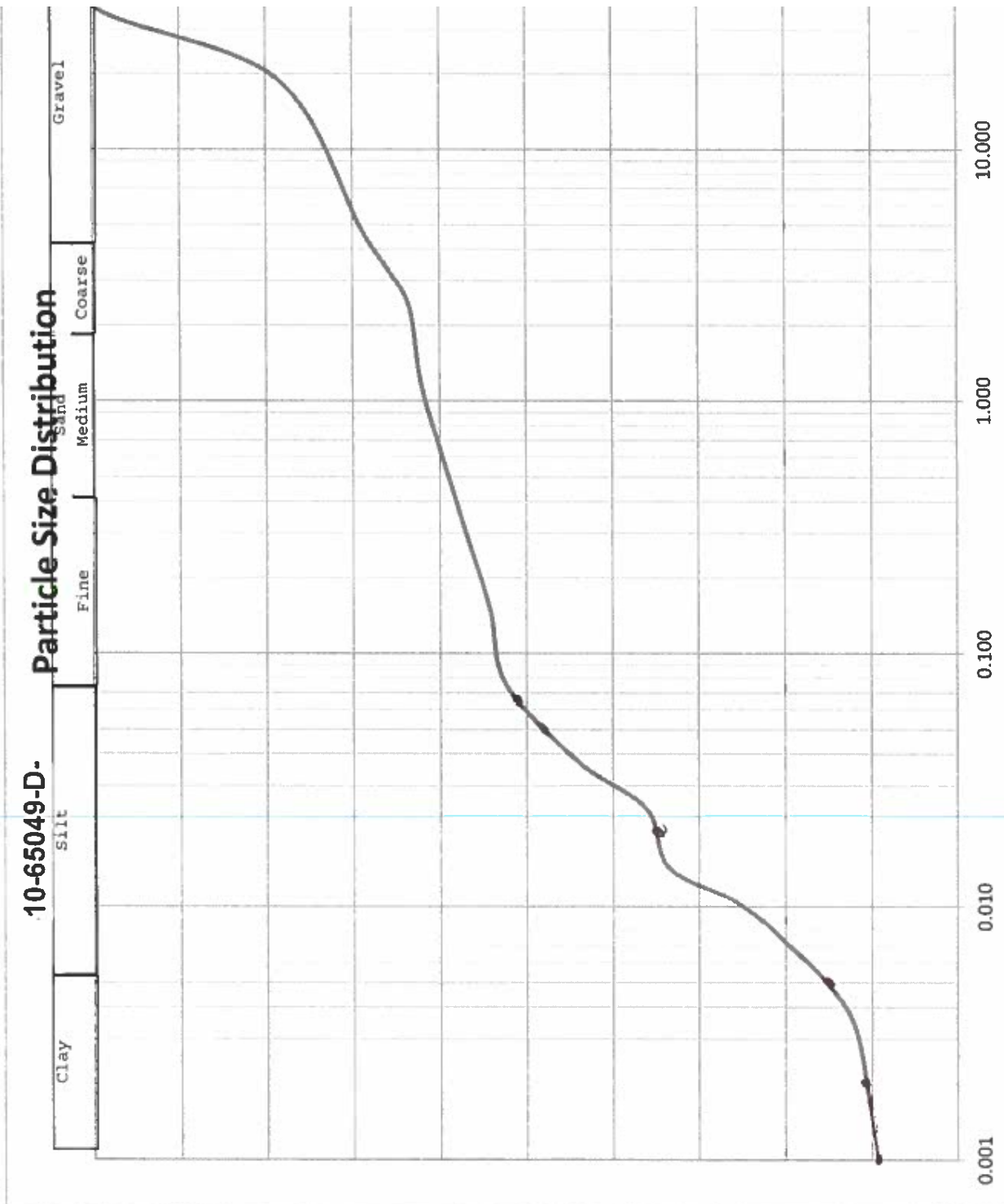
Log (particle size)
-1.124939
-1.429184
-1.612497
-1.845465
-1.981736
-2.123801
-2.420823
-2.796398

Line 1
Constant
Std Err of Y Es
R Squared
No. of Observat
Degrees of Free
X Coefficient(s)
Std Err of Coef

Line 2
Constant
Std Err of Y Es
R Squared
No. of Observat
Degrees of Free
X Coefficient(s)
Std Err of Coef

Particle Size
0.064 5
0.05 4
0.02 3
0.005 1
0.002 10
0.001 6





- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Particle Size Distribution

Sample: 410-65049-D-3	Date: 12/2/21
	Init/Emp # VS/41049

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passi:
3 inch	538.71	538.71	0.00	100
1.5 inch	559.24	559.24	0.00	100
0.75 inch	638.11	555.55	82.56	78.54358
# 4	540.14	502.95	37.19	68.87832
# 6	493.47	482.37	11.10	65.99355
# 8	439.08	429.43	9.65	63.48562
PAN	629.70	385.42	244.28	

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passi:
# 16	452.97	451.97	1.00	62.14751
# 30	295.39	293.54	1.85	59.67201
# 50	267.64	265.61	2.03	56.95565
# 100	320.30	318.25	2.05	54.21253
# 200	217.99	216.58	1.41	52.32580
PAN	385.69	385.35	0.34	

Moisture			
Tare Weight	Sample Weight	Oven Dry Weight	Ratio
0.7827	5.5028	5.9855	0.9455

Bulk Density			
Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol H2O
68.8400	13.2719	106.8220	93.5501
			Vol Soi
			6.4499

Hydrometer Readings			
Time	Sample Weight	50.18	Hydrometer #:
2 minutes	Temp	Reading	237666
5 minutes	22.0	1.0210	Corr. Rdnng.
15 minutes	22.0	1.0180	1.017
30 minutes	22.0	1.0170	1.014
60 minutes	22.0	1.0140	1.013
250 minutes	22.0	1.0120	1.010
	22.0	1.0090	1.008
	22.0	1.0080	0.0075
		1.0065	0.0065



Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (54-135)	BFB (50-131)	DBFM (50-141)	TOL (52-141)
410-65068-1	BH-10 (14.5-15.0)	104 cn	102 cn	96 cn	95 cn
LCS 410-202548/4	Lab Control Sample	95	78	93	79
LCSD 410-202548/5	Lab Control Sample Dup	96	78	93	79
MB 410-202548/7	Method Blank	122	94	113	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (45-108)	NBZ (32-97)	2FP (26-96)	FBP (39-100)	TBP (13-121)	PHL (27-104)
410-65068-1	BH-10 (14.5-15.0)	71 cn	52 cn	63 cn	65 cn	62 cn	61 cn
LCS 410-201680/2-A	Lab Control Sample	91	72	76	81	88	76
MB 410-201680/1-A	Method Blank	86	66	71	74	75	68

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (54-143)	DCB2 (54-143)	TCX1 (20-131)	TCX2 (20-131)
410-65068-1	BH-10 (14.5-15.0)	87	86	47 p	70
LCS 410-204388/2-A	Lab Control Sample	81	88	38	36
MB 410-204388/1-A	Method Blank	79	86	36	36

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (45-143)	DCB2 (45-143)	TCX1 (53-140)	TCX2 (53-140)
410-65068-1	BH-10 (14.5-15.0)	71	100	67	85
LCS 410-201681/2-A	Lab Control Sample	78	84	85	93
MB 410-201681/1-A	Method Blank	75	82	84	90

Eurofins Lancaster Laboratories Env, LLC

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

DRAFT

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QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

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

Lab Sample ID: MB 410-202548/7
Matrix: Solid
Analysis Batch: 202548

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	20	U	250	20	ug/Kg			12/07/21 23:35	50
trans-1,3-Dichloropropene	25	U	250	25	ug/Kg			12/07/21 23:35	50
Ethylbenzene	20	U	250	20	ug/Kg			12/07/21 23:35	50
Styrene	20	U	250	20	ug/Kg			12/07/21 23:35	50
1,4-Dichlorobenzene	20	U	250	20	ug/Kg			12/07/21 23:35	50
1,2-Dibromoethane	20	U	250	20	ug/Kg			12/07/21 23:35	50
1,2-Dichloroethane	30	U	250	30	ug/Kg			12/07/21 23:35	50
4-Methyl-2-pentanone	50	U	500	50	ug/Kg			12/07/21 23:35	50
Methylcyclohexane	30	U	250	30	ug/Kg			12/07/21 23:35	50
Toluene	30	U	250	30	ug/Kg			12/07/21 23:35	50
Chlorobenzene	25	U	250	25	ug/Kg			12/07/21 23:35	50
Cyclohexane	25	U	250	25	ug/Kg			12/07/21 23:35	50
1,2,4-Trichlorobenzene	250	U	500	250	ug/Kg			12/07/21 23:35	50
1,4-Dioxane	1900	U	13000	1900	ug/Kg			12/07/21 23:35	50
Dibromochloromethane	100	U	250	100	ug/Kg			12/07/21 23:35	50
Tetrachloroethene	25	U	250	25	ug/Kg			12/07/21 23:35	50
cis-1,2-Dichloroethene	25	U	250	25	ug/Kg			12/07/21 23:35	50
trans-1,2-Dichloroethene	25	U	250	25	ug/Kg			12/07/21 23:35	50
Methyl tertiary butyl ether	25	U	250	25	ug/Kg			12/07/21 23:35	50
m&p-Xylene	50	U	250	50	ug/Kg			12/07/21 23:35	50
1,3-Dichlorobenzene	25	U	250	25	ug/Kg			12/07/21 23:35	50
Carbon tetrachloride	100	U	250	100	ug/Kg			12/07/21 23:35	50
2-Hexanone	50	U	500	50	ug/Kg			12/07/21 23:35	50
Acetone	300	U	1000	300	ug/Kg			12/07/21 23:35	50
Chloroform	30	U	250	30	ug/Kg			12/07/21 23:35	50
Benzene	25	U	250	25	ug/Kg			12/07/21 23:35	50
1,1,1-Trichloroethane	30	U	250	30	ug/Kg			12/07/21 23:35	50
Bromomethane	35	U	250	35	ug/Kg			12/07/21 23:35	50
Chloromethane	30	U	250	30	ug/Kg			12/07/21 23:35	50
Bromochloromethane	30	U	250	30	ug/Kg			12/07/21 23:35	50
Chloroethane	50	U	250	50	ug/Kg			12/07/21 23:35	50
Vinyl chloride	30	U	250	30	ug/Kg			12/07/21 23:35	50
Methylene Chloride	100	U	250	100	ug/Kg			12/07/21 23:35	50
Carbon disulfide	30	U	250	30	ug/Kg			12/07/21 23:35	50
Bromoform	250	U	500	250	ug/Kg			12/07/21 23:35	50
Bromodichloromethane	20	U	250	20	ug/Kg			12/07/21 23:35	50
1,1-Dichloroethane	25	U	250	25	ug/Kg			12/07/21 23:35	50
1,1-Dichloroethene	25	U	250	25	ug/Kg			12/07/21 23:35	50
Trichlorofluoromethane	35	U	250	35	ug/Kg			12/07/21 23:35	50
Dichlorodifluoromethane	30	U	250	30	ug/Kg			12/07/21 23:35	50
Freon 113	30	U	500	30	ug/Kg			12/07/21 23:35	50
1,2-Dichloropropane	25	U	250	25	ug/Kg			12/07/21 23:35	50
2-Butanone	100	U	500	100	ug/Kg			12/07/21 23:35	50
1,1,2-Trichloroethane	25	U	250	25	ug/Kg			12/07/21 23:35	50
Trichloroethene	25	U	250	25	ug/Kg			12/07/21 23:35	50
Methyl acetate	50	U	250	50	ug/Kg			12/07/21 23:35	50
1,1,2,2-Tetrachloroethane	20	U	250	20	ug/Kg			12/07/21 23:35	50
1,2,3-Trichlorobenzene	250	U	500	250	ug/Kg			12/07/21 23:35	50

QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

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

Lab Sample ID: MB 410-202548/7
Matrix: Solid
Analysis Batch: 202548

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	20	U	250	20	ug/Kg			12/07/21 23:35	50
1,2-Dichlorobenzene	25	U	250	25	ug/Kg			12/07/21 23:35	50
1,2-Dibromo-3-Chloropropane	50	U	250	50	ug/Kg			12/07/21 23:35	50
Isopropylbenzene	20	U	250	20	ug/Kg			12/07/21 23:35	50

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	122		54 - 135		12/07/21 23:35	50
4-Bromofluorobenzene (Surr)	94		50 - 131		12/07/21 23:35	50
Dibromofluoromethane (Surr)	113		50 - 141		12/07/21 23:35	50
Toluene-d8 (Surr)	100		52 - 141		12/07/21 23:35	50

Lab Sample ID: LCS 410-202548/4
Matrix: Solid
Analysis Batch: 202548

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,3-Dichloropropene	1000	1130		ug/Kg		113	66 - 120
trans-1,3-Dichloropropene	1000	974		ug/Kg		97	68 - 122
Ethylbenzene	1000	937		ug/Kg		94	78 - 120
Styrene	1000	929		ug/Kg		93	76 - 120
1,4-Dichlorobenzene	1000	906		ug/Kg		91	80 - 120
1,2-Dibromoethane	1000	947		ug/Kg		95	76 - 120
1,2-Dichloroethane	1000	1100		ug/Kg		110	71 - 128
4-Methyl-2-pentanone	12500	11900		ug/Kg		96	67 - 128
Methylcyclohexane	1000	1120		ug/Kg		112	61 - 124
Toluene	1000	951		ug/Kg		95	80 - 120
Chlorobenzene	1000	982		ug/Kg		98	80 - 120
Cyclohexane	1000	1030		ug/Kg		103	58 - 126
1,2,4-Trichlorobenzene	1000	895		ug/Kg		90	56 - 130
1,4-Dioxane	25000	23300		ug/Kg		93	62 - 131
Dibromochloromethane	1000	1000		ug/Kg		100	69 - 125
Tetrachloroethene	1000	1030		ug/Kg		103	73 - 120
cis-1,2-Dichloroethene	1000	1180		ug/Kg		118	80 - 125
trans-1,2-Dichloroethene	1000	1150		ug/Kg		115	80 - 126
Methyl tertiary butyl ether	1000	1060		ug/Kg		106	72 - 120
m&p-Xylene	2000	2000		ug/Kg		100	80 - 120
1,3-Dichlorobenzene	1000	902		ug/Kg		90	75 - 120
Carbon tetrachloride	1000	1190		ug/Kg		119	64 - 134
2-Hexanone	12500	10100		ug/Kg		81	54 - 140
Acetone	12500	10700		ug/Kg		86	41 - 150
Chloroform	1000	1120		ug/Kg		112	80 - 120
Benzene	1000	1120		ug/Kg		112	80 - 120
1,1,1-Trichloroethane	1000	1140		ug/Kg		114	69 - 123
Bromomethane	1000	1160		ug/Kg		116	45 - 140
Chloromethane	1000	892		ug/Kg		89	56 - 120
Bromochloromethane	1000	1240		ug/Kg		124	72 - 124
Chloroethane	1000	1030		ug/Kg		103	43 - 135
Vinyl chloride	1000	981		ug/Kg		98	52 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

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

Lab Sample ID: LCS 410-202548/4
Matrix: Solid
Analysis Batch: 202548

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	1000	1140		ug/Kg		114	76 - 122
Carbon disulfide	1000	1120		ug/Kg		112	64 - 133
Bromoform	1000	911		ug/Kg		91	51 - 127
Bromodichloromethane	1000	1130		ug/Kg		113	70 - 120
1,1-Dichloroethane	1000	1070		ug/Kg		107	79 - 120
1,1-Dichloroethene	1000	1150		ug/Kg		115	73 - 129
Trichlorofluoromethane	1000	1110		ug/Kg		111	55 - 134
Dichlorodifluoromethane	1000	726		ug/Kg		73	21 - 127
Freon 113	1000	1170		ug/Kg		117	64 - 135
1,2-Dichloropropane	1000	1090		ug/Kg		109	80 - 120
2-Butanone	12500	10500		ug/Kg		84	57 - 128
1,1,2-Trichloroethane	1000	967		ug/Kg		97	80 - 120
Trichloroethene	1000	1130		ug/Kg		113	80 - 120
Methyl acetate	1000	1130		ug/Kg		113	67 - 128
1,1,1,2-Tetrachloroethane	1000	849		ug/Kg		85	69 - 125
1,2,3-Trichlorobenzene	1000	924		ug/Kg		92	57 - 131
o-Xylene	1000	967		ug/Kg		97	75 - 120
1,2-Dichlorobenzene	1000	899		ug/Kg		90	76 - 120
1,2-Dibromo-3-Chloropropane	1000	740		ug/Kg		74	48 - 134
Isopropylbenzene	1000	989		ug/Kg		99	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		54 - 135
4-Bromofluorobenzene (Surr)	78		50 - 131
Dibromofluoromethane (Surr)	93		50 - 141
Toluene-d8 (Surr)	79		52 - 141

Lab Sample ID: LCSD 410-202548/5
Matrix: Solid
Analysis Batch: 202548

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	1000	1120		ug/Kg		112	66 - 120	1	30
trans-1,3-Dichloropropene	1000	979		ug/Kg		98	68 - 122	1	30
Ethylbenzene	1000	928		ug/Kg		93	78 - 120	1	30
Styrene	1000	923		ug/Kg		92	76 - 120	1	30
1,4-Dichlorobenzene	1000	920		ug/Kg		92	80 - 120	2	30
1,2-Dibromoethane	1000	950		ug/Kg		95	76 - 120	0	30
1,2-Dichloroethane	1000	1090		ug/Kg		109	71 - 128	0	30
4-Methyl-2-pentanone	12500	11700		ug/Kg		93	67 - 128	2	30
Methylcyclohexane	1000	1120		ug/Kg		112	61 - 124	0	30
Toluene	1000	952		ug/Kg		95	80 - 120	0	30
Chlorobenzene	1000	984		ug/Kg		98	80 - 120	0	30
Cyclohexane	1000	1010		ug/Kg		101	58 - 126	2	30
1,2,4-Trichlorobenzene	1000	870		ug/Kg		87	56 - 130	3	30
1,4-Dioxane	25000	23400		ug/Kg		94	62 - 131	0	30
Dibromochloromethane	1000	1000		ug/Kg		100	69 - 125	0	30
Tetrachloroethene	1000	1030		ug/Kg		103	73 - 120	0	30

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

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

Lab Sample ID: LCSD 410-202548/5
Matrix: Solid
Analysis Batch: 202548

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	1000	1180		ug/Kg		118	80 - 125	0	30
trans-1,2-Dichloroethene	1000	1120		ug/Kg		112	80 - 126	3	30
Methyl tertiary butyl ether	1000	1060		ug/Kg		106	72 - 120	0	30
m&p-Xylene	2000	2000		ug/Kg		100	80 - 120	0	30
1,3-Dichlorobenzene	1000	908		ug/Kg		91	75 - 120	1	30
Carbon tetrachloride	1000	1160		ug/Kg		116	64 - 134	2	30
2-Hexanone	12500	10200		ug/Kg		81	54 - 140	0	30
Acetone	12500	11100		ug/Kg		89	41 - 150	4	30
Chloroform	1000	1100		ug/Kg		110	80 - 120	2	30
Benzene	1000	1110		ug/Kg		111	80 - 120	1	30
1,1,1-Trichloroethane	1000	1100		ug/Kg		110	69 - 123	3	30
Bromomethane	1000	1150		ug/Kg		115	45 - 140	1	30
Chloromethane	1000	886		ug/Kg		89	56 - 120	1	30
Bromochloromethane	1000	1240		ug/Kg		124	72 - 124	0	30
Chloroethane	1000	1000		ug/Kg		100	43 - 135	3	30
Vinyl chloride	1000	968		ug/Kg		97	52 - 120	1	30
Methylene Chloride	1000	1130		ug/Kg		113	76 - 122	1	30
Carbon disulfide	1000	1090		ug/Kg		109	64 - 133	2	30
Bromoform	1000	917		ug/Kg		92	51 - 127	1	30
Bromodichloromethane	1000	1120		ug/Kg		112	70 - 120	0	30
1,1-Dichloroethane	1000	1070		ug/Kg		107	79 - 120	0	30
1,1-Dichloroethene	1000	1160		ug/Kg		116	73 - 129	1	30
Trichlorofluoromethane	1000	1100		ug/Kg		110	55 - 134	1	30
Dichlorodifluoromethane	1000	698		ug/Kg		70	21 - 127	4	30
Freon 113	1000	1130		ug/Kg		113	64 - 135	3	30
1,2-Dichloropropane	1000	1080		ug/Kg		108	80 - 120	1	30
2-Butanone	12500	10300		ug/Kg		83	57 - 128	2	30
1,1,2-Trichloroethane	1000	960		ug/Kg		96	80 - 120	1	30
Trichloroethene	1000	1120		ug/Kg		112	80 - 120	0	30
Methyl acetate	1000	1070		ug/Kg		107	67 - 128	6	30
1,1,2,2-Tetrachloroethane	1000	847		ug/Kg		85	69 - 125	0	30
1,2,3-Trichlorobenzene	1000	914		ug/Kg		91	57 - 131	1	30
o-Xylene	1000	977		ug/Kg		98	75 - 120	1	30
1,2-Dichlorobenzene	1000	916		ug/Kg		92	76 - 120	2	30
1,2-Dibromo-3-Chloropropane	1000	719		ug/Kg		72	48 - 134	3	30
Isopropylbenzene	1000	990		ug/Kg		99	77 - 120	0	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	96		54 - 135
4-Bromofluorobenzene (Surr)	78		50 - 131
Dibromofluoromethane (Surr)	93		50 - 141
Toluene-d8 (Surr)	79		52 - 141

QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

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

Lab Sample ID: MB 410-201680/1-A
Matrix: Solid
Analysis Batch: 202038

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201680

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1'-Biphenyl	17	U	37	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
1,2,4,5-Tetrachlorobenzene	17	U	37	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
2,2'-oxybis[1-chloropropane]	20	U	43	20	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
2,3,4,6-Tetrachlorophenol	67	U	170	67	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
2,4,5-Trichlorophenol	17	U	37	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
2,4,6-Trichlorophenol	17	U	37	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
2,4-Dichlorophenol	20	U	43	20	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
2,4-Dimethylphenol	17	U	37	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
2,4-Dinitrophenol	170	U	1000	170	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
2,4-Dinitrotoluene	33	U	170	33	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
2,6-Dinitrotoluene	17	U	37	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
2-Chloronaphthalene	13	U	33	13	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
2-Chlorophenol	17	U	37	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
2-Methylnaphthalene	5.0	U	17	5.0	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
2-Methylphenol	20	U	50	20	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
2-Nitroaniline	17	U	50	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
2-Nitrophenol	20	U	50	20	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
3,3'-Dichlorobenzidine	33	U	170	33	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
3-Nitroaniline	33	U	170	33	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
4,6-Dinitro-2-methylphenol	170	U	500	170	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
4-Bromophenyl-phenylether	17	U	37	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
4-Chloro-3-methylphenol	20	U	50	20	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
4-Methylphenol	17	U	50	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
4-Nitroaniline	33	U	170	33	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
4-Nitrophenol	170	U	500	170	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Acenaphthene	3.3	U	17	3.3	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Acenaphthylene	4.0	U	17	4.0	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Acetophenone	17	U	50	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Anthracene	3.3	U	17	3.3	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Atrazine	67	U	170	67	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Benzaldehyde	33	U	170	33	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Benzo[a]anthracene	3.3	U	17	3.3	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Benzo[a]pyrene	3.3	U	17	3.3	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Benzo[b]fluoranthene	3.3	U	17	3.3	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Benzo[g,h,i]perylene	3.3	U	17	3.3	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Benzo[k]fluoranthene	3.3	U	17	3.3	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Bis(2-chloroethoxy)methane	17	U	37	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Bis(2-chloroethyl)ether	17	U	37	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Bis(2-ethylhexyl) phthalate	67	U	170	67	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Butylbenzylphthalate	67	U	170	67	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Caprolactam	33	U	170	33	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Carbazole	17	U	37	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Chrysene	3.3	U	17	3.3	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Di-n-butyl phthalate	67	U	170	67	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Di-n-octyl phthalate	67	U	170	67	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Dibenz(a,h)anthracene	6.7	U	17	6.7	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Dibenzofuran	17	U	37	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Diethyl phthalate	67	U	170	67	ug/Kg		12/06/21 09:27	12/06/21 23:01	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

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

Lab Sample ID: MB 410-201680/1-A
Matrix: Solid
Analysis Batch: 202038

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201680

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dimethyl phthalate	67	U	170	67	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Fluoranthene	3.3	U	17	3.3	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Fluorene	3.3	U	17	3.3	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Hexachlorobenzene	6.7	U	17	6.7	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Hexachlorobutadiene	20	U	50	20	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Hexachlorocyclopentadiene	170	U	500	170	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Hexachloroethane	33	U	170	33	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Indeno[1,2,3-cd]pyrene	4.0	U	17	4.0	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Isophorone	17	U	67	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
N-Nitrosodi-n-propylamine	33	U	67	33	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
N-Nitrosodiphenylamine	17	U	37	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Naphthalene	6.7	U	17	6.7	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Nitrobenzene	17	U	37	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Phenanthrene	4.0	U	17	4.0	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Phenol	17	U	37	17	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Pyrene	3.3	U	17	3.3	ug/Kg		12/06/21 09:27	12/06/21 23:01	1
Pentachlorophenol	67	U	170	67	ug/Kg		12/06/21 09:27	12/06/21 23:01	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
<i>p</i> -Terphenyl-d14 (Surr)	86		45 - 108	12/06/21 09:27	12/06/21 23:01	1
Nitrobenzene-d5 (Surr)	66		32 - 97	12/06/21 09:27	12/06/21 23:01	1
2-Fluorophenol (Surr)	71		26 - 96	12/06/21 09:27	12/06/21 23:01	1
2-Fluorobiphenyl (Surr)	74		39 - 100	12/06/21 09:27	12/06/21 23:01	1
2,4,6-Tribromophenol (Surr)	75		13 - 121	12/06/21 09:27	12/06/21 23:01	1
Phenol-d5 (Surr)	68		27 - 104	12/06/21 09:27	12/06/21 23:01	1

Lab Sample ID: LCS 410-201680/2-A
Matrix: Solid
Analysis Batch: 202038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201680

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2,4,5-Tetrachlorobenzene	1670	1340		ug/Kg		81	60 - 120
2,2'-oxybis[1-chloropropane]	1670	1050		ug/Kg		63	48 - 120
2,3,4,6-Tetrachlorophenol	1670	1340		ug/Kg		80	59 - 120
2,4,5-Trichlorophenol	1670	1550		ug/Kg		93	61 - 120
2,4,6-Trichlorophenol	1670	1540		ug/Kg		92	59 - 120
2,4-Dichlorophenol	1670	1480		ug/Kg		89	62 - 120
2,4-Dimethylphenol	1670	1400		ug/Kg		84	65 - 120
2,4-Dinitrophenol	3330	2520		ug/Kg		75	44 - 120
2,4-Dinitrotoluene	1670	1420		ug/Kg		85	68 - 120
2,6-Dinitrotoluene	1670	1440		ug/Kg		86	67 - 120
2-Chloronaphthalene	1670	1410		ug/Kg		85	61 - 120
2-Chlorophenol	1670	1270		ug/Kg		76	59 - 120
2-Methylnaphthalene	1670	1330		ug/Kg		80	63 - 120
2-Methylphenol	1670	1350		ug/Kg		81	63 - 120
2-Nitroaniline	1670	1510		ug/Kg		90	64 - 120
2-Nitrophenol	1670	1400		ug/Kg		84	55 - 120

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

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

Lab Sample ID: LCS 410-201680/2-A
Matrix: Solid
Analysis Batch: 202038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201680

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3,3'-Dichlorobenzidine	3330	2410		ug/Kg		72	19 - 120
3-Nitroaniline	1670	1130		ug/Kg		68	31 - 120
4,6-Dinitro-2-methylphenol	3330	2890		ug/Kg		87	59 - 120
4-Bromophenyl-phenylether	1670	1490		ug/Kg		89	65 - 120
4-Chloro-3-methylphenol	1670	1400		ug/Kg		84	67 - 120
4-Methylphenol	1670	1270		ug/Kg		76	56 - 120
4-Nitroaniline	1670	1300		ug/Kg		78	59 - 120
4-Nitrophenol	3330	2450		ug/Kg		74	58 - 120
Acenaphthene	1670	1360		ug/Kg		82	61 - 120
Acenaphthylene	1670	1450		ug/Kg		87	69 - 120
Acetophenone	1670	1180		ug/Kg		71	54 - 120
Anthracene	1670	1490		ug/Kg		89	75 - 120
Atrazine	1670	1460		ug/Kg		87	63 - 127
Benzaldehyde	1670	941		ug/Kg		56	25 - 120
Benzo[a]anthracene	1670	1460		ug/Kg		88	73 - 120
Benzo[a]pyrene	1670	1600		ug/Kg		96	80 - 123
Benzo[b]fluoranthene	1670	1400		ug/Kg		84	63 - 120
Benzo[g,h,i]perylene	1670	1570		ug/Kg		94	77 - 120
Benzo[k]fluoranthene	1670	1540		ug/Kg		92	68 - 120
Bis(2-chloroethoxy)methane	1670	1270		ug/Kg		76	55 - 120
Bis(2-chloroethyl)ether	1670	1170		ug/Kg		70	49 - 120
Bis(2-ethylhexyl) phthalate	1670	1400		ug/Kg		84	65 - 120
Butylbenzylphthalate	1670	1370		ug/Kg		82	66 - 120
Caprolactam	1670	1590		ug/Kg		96	54 - 120
Carbazole	1670	1480		ug/Kg		89	74 - 120
Chrysene	1670	1410		ug/Kg		84	66 - 120
Di-n-butyl phthalate	1670	1450		ug/Kg		87	65 - 120
Di-n-octyl phthalate	1670	1540		ug/Kg		93	60 - 125
Dibenz(a,h)anthracene	1670	1550		ug/Kg		93	72 - 120
Dibenzofuran	1670	1380		ug/Kg		83	68 - 120
Diethyl phthalate	1670	1360		ug/Kg		81	65 - 120
Dimethyl phthalate	1670	1350		ug/Kg		81	67 - 120
Fluoranthene	1670	1490		ug/Kg		90	71 - 120
Fluorene	1670	1400		ug/Kg		84	68 - 120
Hexachlorobenzene	1670	1430		ug/Kg		86	58 - 120
Hexachlorobutadiene	1670	1200		ug/Kg		72	48 - 120
Hexachlorocyclopentadiene	1670	911		ug/Kg		55	43 - 120
Hexachloroethane	1670	1060		ug/Kg		63	48 - 120
Indeno[1,2,3-cd]pyrene	1670	1560		ug/Kg		93	71 - 122
Isophorone	1670	1280		ug/Kg		77	62 - 120
N-Nitrosodi-n-propylamine	1670	1180		ug/Kg		71	55 - 120
N-Nitrosodiphenylamine	1420	1290		ug/Kg		91	71 - 120
Naphthalene	1670	1270		ug/Kg		76	60 - 120
Nitrobenzene	1670	1180		ug/Kg		71	56 - 120
Phenanthrene	1670	1420		ug/Kg		85	74 - 120
Phenol	1670	1210		ug/Kg		72	57 - 120
Pyrene	1670	1420		ug/Kg		85	70 - 120
Pentachlorophenol	3330	2770		ug/Kg		83	41 - 120

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

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

Lab Sample ID: LCS 410-201680/2-A
Matrix: Solid
Analysis Batch: 202038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201680

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
p-Terphenyl-d14 (Surr)	91		45 - 108
Nitrobenzene-d5 (Surr)	72		32 - 97
2-Fluorophenol (Surr)	76		26 - 96
2-Fluorobiphenyl (Surr)	81		39 - 100
2,4,6-Tribromophenol (Surr)	88		13 - 121
Phenol-d5 (Surr)	76		27 - 104

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-204388/1-A
Matrix: Solid
Analysis Batch: 204420

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 204388

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin (1C)	0.17	U	0.83	0.17	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
alpha-BHC (1C)	0.17	U	0.83	0.17	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
alpha-Chlordane (1C)	0.17	U	0.83	0.17	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
beta-BHC (1C)	0.44	U	1.0	0.44	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
delta-BHC (1C)	0.45	U	1.0	0.45	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
Dieldrin (1C)	0.33	U	1.7	0.33	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
Endosulfan I (1C)	0.22	U	0.83	0.22	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
Endosulfan II (1C)	1.1	U	2.3	1.1	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
Endosulfan sulfate (1C)	0.33	U	1.7	0.33	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
Endrin (1C)	0.68	U	1.7	0.68	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
Endrin aldehyde (1C)	0.33	U	1.7	0.33	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
Endrin ketone (2C)	0.60	U	2.0	0.60	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
gamma-BHC (Lindane) (1C)	0.21	U	0.83	0.21	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
gamma-Chlordane (1C)	0.25	U	0.83	0.25	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
Heptachlor (1C)	0.31	U	0.83	0.31	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
Heptachlor epoxide (1C)	0.17	U	0.83	0.17	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
Methoxychlor (2C)	1.8	U	6.7	1.8	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
Toxaphene (1C)	14	U	33	14	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
p,p'-DDD (1C)	0.33	U	1.7	0.33	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
p,p'-DDE (1C)	0.33	U	1.7	0.33	ug/Kg		12/12/21 17:45	12/13/21 07:43	1
p,p'-DDT (1C)	0.79	U	1.7	0.79	ug/Kg		12/12/21 17:45	12/13/21 07:43	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	79		54 - 143	12/12/21 17:45	12/13/21 07:43	1
DCB Decachlorobiphenyl (Surr) (2C)	86		54 - 143	12/12/21 17:45	12/13/21 07:43	1
Tetrachloro-m-xylene (Surr) (1C)	36		20 - 131	12/12/21 17:45	12/13/21 07:43	1
Tetrachloro-m-xylene (Surr) (2C)	36		20 - 131	12/12/21 17:45	12/13/21 07:43	1

Lab Sample ID: LCS 410-204388/2-A
Matrix: Solid
Analysis Batch: 204420

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 204388

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Aldrin (1C)	3.38	3.15		ug/Kg		93	56 - 134

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

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

Lab Sample ID: LCS 410-204388/2-A
Matrix: Solid
Analysis Batch: 204420

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 204388

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha-BHC (2C)	3.38	3.16		ug/Kg		94	55 - 135
beta-BHC (2C)	3.33	2.87		ug/Kg		86	50 - 132
delta-BHC (2C)	3.33	3.27		ug/Kg		98	47 - 141
Dieldrin (2C)	6.67	6.25		ug/Kg		94	54 - 136
Endosulfan I (1C)	3.38	2.98		ug/Kg		88	51 - 124
Endosulfan II (2C)	6.71	5.84		ug/Kg		87	56 - 125
Endosulfan sulfate (1C)	6.71	5.96		ug/Kg		89	56 - 125
Endrin (2C)	6.67	6.34		ug/Kg		95	56 - 129
Endrin aldehyde (2C)	6.71	5.76		ug/Kg		86	46 - 133
Endrin ketone (2C)	6.67	5.88		ug/Kg		88	55 - 128
gamma-BHC (Lindane) (2C)	3.33	3.01		ug/Kg		90	52 - 138
Heptachlor (1C)	3.38	3.20		ug/Kg		95	52 - 139
Heptachlor epoxide (1C)	3.33	3.28		ug/Kg		98	55 - 133
Methoxychlor (2C)	33.6	30.4		ug/Kg		90	54 - 148
p,p'-DDD (2C)	6.71	6.25		ug/Kg		93	59 - 135
p,p'-DDE (2C)	6.71	6.14		ug/Kg		92	57 - 135
p,p'-DDT (1C)	6.71	6.06		ug/Kg		90	53 - 151

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	81		54 - 143
DCB Decachlorobiphenyl (Surr) (2C)	88		54 - 143
Tetrachloro-m-xylene (Surr) (1C)	38		20 - 131
Tetrachloro-m-xylene (Surr) (2C)	36		20 - 131

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

Lab Sample ID: MB 410-201681/1-A
Matrix: Solid
Analysis Batch: 202127

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	5.3	U	17	5.3	ug/Kg		12/06/21 09:16	12/06/21 18:02	1
PCB-1221 (1C)	5.3	U	17	5.3	ug/Kg		12/06/21 09:16	12/06/21 18:02	1
PCB-1232 (1C)	5.3	U	17	5.3	ug/Kg		12/06/21 09:16	12/06/21 18:02	1
PCB-1242 (1C)	5.3	U	17	5.3	ug/Kg		12/06/21 09:16	12/06/21 18:02	1
PCB-1248 (1C)	5.3	U	17	5.3	ug/Kg		12/06/21 09:16	12/06/21 18:02	1
PCB-1254 (1C)	6.4	U	17	6.4	ug/Kg		12/06/21 09:16	12/06/21 18:02	1
PCB-1260 (1C)	6.4	U	17	6.4	ug/Kg		12/06/21 09:16	12/06/21 18:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	75		45 - 143	12/06/21 09:16	12/06/21 18:02	1
DCB Decachlorobiphenyl (Surr) (2C)	82		45 - 143	12/06/21 09:16	12/06/21 18:02	1
Tetrachloro-m-xylene (1C)	84		53 - 140	12/06/21 09:16	12/06/21 18:02	1
Tetrachloro-m-xylene (2C)	90		53 - 140	12/06/21 09:16	12/06/21 18:02	1

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

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

Lab Sample ID: LCS 410-201681/2-A
Matrix: Solid
Analysis Batch: 202127

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016 (2C)	167	128		ug/Kg		76	68 - 121
PCB-1260 (2C)	168	148		ug/Kg		88	75 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	78		45 - 143
DCB Decachlorobiphenyl (Surr) (2C)	84		45 - 143
Tetrachloro-m-xylene (1C)	85		53 - 140
Tetrachloro-m-xylene (2C)	93		53 - 140

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-200757/1-A
Matrix: Solid
Analysis Batch: 203480

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 200757

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11	U	20	11	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Arsenic	1.4	U	3.0	1.4	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Barium	0.15	U	0.50	0.15	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Beryllium	0.10	U	0.50	0.10	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Cadmium	0.10	U	0.50	0.10	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Calcium	12	U	50	12	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Chromium	0.18	U	1.5	0.18	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Cobalt	0.15	U	0.50	0.15	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Copper	0.77	U ^+	2.0	0.77	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Iron	6.2	U	20	6.2	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Lead	0.60	U	1.5	0.60	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Magnesium	4.0	U ^5-	10	4.0	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Manganese	0.52	U	1.0	0.52	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Nickel	0.26	U	1.0	0.26	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Potassium	20	U	50	20	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Selenium	1.5	U	5.0	1.5	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Silver	0.40	U ^5-	1.0	0.40	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Sodium	46	U	100	46	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Thallium	1.3	U	3.0	1.3	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Zinc	1.0	U	2.0	1.0	mg/Kg		12/02/21 12:49	12/09/21 11:40	1
Vanadium	0.43	U	1.0	0.43	mg/Kg		12/02/21 12:49	12/09/21 11:40	1

Lab Sample ID: MB 410-200757/1-A
Matrix: Solid
Analysis Batch: 203944

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 200757

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.7	U	5.0	1.7	mg/Kg		12/02/21 12:49	12/10/21 11:22	1
Copper	0.77	U	2.0	0.77	mg/Kg		12/02/21 12:49	12/10/21 11:22	1
Iron	6.2	U	20	6.2	mg/Kg		12/02/21 12:49	12/10/21 11:22	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

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

Lab Sample ID: LCS 410-200757/2-A
Matrix: Solid
Analysis Batch: 203480

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 200757
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aluminum	500	485		mg/Kg		97	80 - 120
Arsenic	50.0	52.4		mg/Kg		105	80 - 120
Barium	50.0	51.6		mg/Kg		103	80 - 120
Beryllium	5.00	5.15		mg/Kg		103	80 - 120
Cadmium	5.00	5.21		mg/Kg		104	80 - 120
Calcium	500	518		mg/Kg		104	80 - 120
Chromium	50.0	52.6		mg/Kg		105	80 - 120
Cobalt	50.0	53.2		mg/Kg		106	80 - 120
Iron	500	528		mg/Kg		106	80 - 120
Lead	5.00	4.68		mg/Kg		94	80 - 120
Magnesium	500	520	^5-	mg/Kg		104	80 - 120
Manganese	50.0	52.4		mg/Kg		105	80 - 120
Nickel	50.0	52.8		mg/Kg		106	80 - 120
Potassium	500	523		mg/Kg		105	80 - 120
Selenium	10.0	9.48		mg/Kg		95	80 - 120
Silver	5.00	5.24	^5-	mg/Kg		105	80 - 120
Sodium	500	525		mg/Kg		105	80 - 120
Thallium	9.99	10.6		mg/Kg		106	80 - 120
Zinc	50.0	50.4		mg/Kg		101	80 - 120
Vanadium	50.0	52.1		mg/Kg		104	80 - 120

Lab Sample ID: LCS 410-200757/2-A
Matrix: Solid
Analysis Batch: 203944

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 200757
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	10.0	10.3		mg/Kg		103	80 - 120
Copper	50.0	52.4		mg/Kg		105	80 - 120
Iron	500	540		mg/Kg		108	80 - 120

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-200977/1-A
Matrix: Solid
Analysis Batch: 202673

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 200977

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	U	0.036	0.015	mg/Kg		12/02/21 21:30	12/07/21 21:40	1

Lab Sample ID: LCS 410-200977/2-A
Matrix: Solid
Analysis Batch: 202673

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 200977
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.100	0.118		mg/Kg		118	80 - 120

QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

Method: EPA-Lloyd Kahn - Organic Carbon, Total (TOC)

Lab Sample ID: MB 180-381172/4
Matrix: Solid
Analysis Batch: 381172

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	970	U	1000	970	mg/Kg			12/06/21 13:24	1

Lab Sample ID: LCS 180-381172/5
Matrix: Solid
Analysis Batch: 381172

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	38200	37700		mg/Kg		99	75 - 125

DRAFT

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QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

GC/MS VOA

Prep Batch: 199922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	5035	

Analysis Batch: 202548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	8260C	199922
MB 410-202548/7	Method Blank	Total/NA	Solid	8260C	
LCS 410-202548/4	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-202548/5	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 201680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	3546	
MB 410-201680/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-201680/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 202038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	8270D	201680
MB 410-201680/1-A	Method Blank	Total/NA	Solid	8270D	201680
LCS 410-201680/2-A	Lab Control Sample	Total/NA	Solid	8270D	201680

GC Semi VOA

Prep Batch: 201681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	3546	
MB 410-201681/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-201681/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 202127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	8082A	201681
MB 410-201681/1-A	Method Blank	Total/NA	Solid	8082A	201681
LCS 410-201681/2-A	Lab Control Sample	Total/NA	Solid	8082A	201681

Prep Batch: 204388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	3546	
MB 410-204388/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-204388/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 204420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	8081B	204388
MB 410-204388/1-A	Method Blank	Total/NA	Solid	8081B	204388
LCS 410-204388/2-A	Lab Control Sample	Total/NA	Solid	8081B	204388

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

Metals

Prep Batch: 200757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	3050B	
MB 410-200757/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-200757/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 200977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	7471B	
MB 410-200977/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-200977/2-A	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 202673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	7471B	200977
MB 410-200977/1-A	Method Blank	Total/NA	Solid	7471B	200977
LCS 410-200977/2-A	Lab Control Sample	Total/NA	Solid	7471B	200977

Analysis Batch: 203480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	6010D	200757
MB 410-200757/1-A	Method Blank	Total/NA	Solid	6010D	200757
LCS 410-200757/2-A	Lab Control Sample	Total/NA	Solid	6010D	200757

Analysis Batch: 203944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	6010D	200757
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	6010D	200757
MB 410-200757/1-A	Method Blank	Total/NA	Solid	6010D	200757
LCS 410-200757/2-A	Lab Control Sample	Total/NA	Solid	6010D	200757

General Chemistry

Analysis Batch: 200687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	Moisture	

Analysis Batch: 381172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	EPA-Lloyd Kahn	
MB 180-381172/4	Method Blank	Total/NA	Solid	EPA-Lloyd Kahn	
LCS 180-381172/5	Lab Control Sample	Total/NA	Solid	EPA-Lloyd Kahn	

Geotechnical

Analysis Batch: 204710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65068-1	BH-10 (14.5-15.0)	Total/NA	Solid	D422	

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

Client Sample ID: BH-10 (14.5-15.0)

Lab Sample ID: 410-65068-1

Date Collected: 11/30/21 13:45

Matrix: Solid

Date Received: 11/30/21 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	200687	12/02/21 10:51	UVJN	ELLE
Total/NA	Analysis	D422		1	204710	12/02/21 11:35	UYB0	ELLE

Client Sample ID: BH-10 (14.5-15.0)

Lab Sample ID: 410-65068-1

Date Collected: 11/30/21 13:45

Matrix: Solid

Date Received: 11/30/21 18:00

Percent Solids: 58.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			199922	11/30/21 21:25	D8NM	ELLE
Total/NA	Analysis	8260C		50	202548	12/08/21 05:53	SWV2	ELLE
Total/NA	Prep	3546			201680	12/06/21 09:27	H2LC	ELLE
Total/NA	Analysis	8270D		1	202038	12/07/21 03:45	W6XI	ELLE
Total/NA	Prep	3546			204388	12/12/21 17:45	D7SW	ELLE
Total/NA	Analysis	8081B		20	204420	12/13/21 09:09	WN7O	ELLE
Total/NA	Prep	3546			201681	12/06/21 09:16	H2LC	ELLE
Total/NA	Analysis	8082A		1	202127	12/06/21 19:15	JC94	ELLE
Total/NA	Prep	3050B			200757	12/02/21 12:49	UJLA	ELLE
Total/NA	Analysis	6010D		1	203480	12/09/21 11:46	WJM9	ELLE
Total/NA	Prep	3050B			200757	12/02/21 12:49	UJLA	ELLE
Total/NA	Analysis	6010D		1	203944	12/10/21 11:29	WJM9	ELLE
Total/NA	Prep	3050B			200757	12/02/21 12:49	UJLA	ELLE
Total/NA	Analysis	6010D		5	203944	12/10/21 11:40	WJM9	ELLE
Total/NA	Prep	7471B			200977	12/02/21 21:30	UJLA	ELLE
Total/NA	Analysis	7471B		1	202673	12/07/21 22:31	UEFS	ELLE
Total/NA	Analysis	EPA-Lloyd Kahn		1	381172	12/06/21 17:24	DLF	TAL PIT

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22

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
8260C	5035	Solid	m&p-Xylene
8260C	5035	Solid	o-Xylene
D422		Solid	0.001 mm
D422		Solid	0.002 mm
D422		Solid	0.005 mm
D422		Solid	0.02 mm
D422		Solid	0.05 mm
D422		Solid	0.064 mm
D422		Solid	0.075 mm
D422		Solid	0.15 mm
D422		Solid	0.3 mm
D422		Solid	0.6 mm
D422		Solid	1.18 mm
D422		Solid	19 mm
D422		Solid	2.36 mm
D422		Solid	3.35 mm
D422		Solid	37.5 mm
D422		Solid	4.75 mm
D422		Solid	75 mm
D422		Solid	Clay
D422		Solid	Gravel
D422		Solid	Sand
D422		Solid	Silt
Moisture		Solid	Percent Moisture

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-22
California	State	2891	04-30-22
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	06-30-22
Georgia	State	PA 02-00416	04-30-22
Illinois	NELAP	004375	06-30-22
Kansas	NELAP	E-10350	01-31-22
Kentucky (UST)	State	162013	04-30-22
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	06-30-22
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-21
Nevada	State	PA00164	08-31-22
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	06-30-22
New York	NELAP	11182	04-01-22
North Carolina (WW/SW)	State	434	12-31-21

Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-227	04-30-22
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	04-30-22
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-22
Texas	NELAP	T104704528	03-31-22
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-22
Virginia	NELAP	10043	09-15-22
West Virginia DEP	State	142	01-31-22
Wisconsin	State	998027800	08-31-22

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Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
6010D	Metals (ICP)	SW846	ELLE
7471B	Mercury (CVAA)	SW846	ELLE
EPA-Lloyd Kahn	Organic Carbon, Total (TOC)	EPA	TAL PIT
Moisture	Percent Moisture	EPA	ELLE
D422	Grain Size	ASTM	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
7471B	Preparation, Mercury	SW846	ELLE

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65068-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-65068-1	BH-10 (14.5-15.0)	Solid	11/30/21 13:45	11/30/21 18:00

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410-65068 Chain of Custody

LC

Chain of Custody Record

Sampler ROUX		Lab PM Tessier, Kelly		Camer Tracking No(s)		COC No 410-38573-12089 1												
Client Contact Ms. Ashley Sweeney		Phone 856-423-8800		E-Mail kelly.tessier@eurofinset.com		Page Page 1 of 1												
Company Roux Associates, Inc.		PWSID		Analysis Requested				Job #										
Address 402 Heron Drive		Due Date Requested:		<table border="1"> <tr><td>60100, 7471B, 8081B, 8082A, 8270D, Lloyd_Kahn, Moisture</td></tr> <tr><td>8260C - TCL VOCs SOM01.2</td></tr> <tr><td>D422 - Grain Size</td></tr> <tr><td>8260C - TCL 1,2 VOCs</td></tr> <tr><td>8081B, 8270D</td></tr> <tr><td>60100, 7470A</td></tr> <tr><td>60100, 7470A</td></tr> <tr><td>5310C - Total Organic Carbon</td></tr> <tr><td>2340C - Hardness, Total (mg/l as CaCO3)</td></tr> </table>				60100, 7471B, 8081B, 8082A, 8270D, Lloyd_Kahn, Moisture	8260C - TCL VOCs SOM01.2	D422 - Grain Size	8260C - TCL 1,2 VOCs	8081B, 8270D	60100, 7470A	60100, 7470A	5310C - Total Organic Carbon	2340C - Hardness, Total (mg/l as CaCO3)	Preservation Codes:	
60100, 7471B, 8081B, 8082A, 8270D, Lloyd_Kahn, Moisture																		
8260C - TCL VOCs SOM01.2																		
D422 - Grain Size																		
8260C - TCL 1,2 VOCs																		
8081B, 8270D																		
60100, 7470A																		
60100, 7470A																		
5310C - Total Organic Carbon																		
2340C - Hardness, Total (mg/l as CaCO3)																		
City Logan Township		TAT Requested (days):		A - HCL		M - Hexane												
State, Zip NJ, 08085		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		B - NaOH		N - None												
Phone 609-504-6656(Tel)		PO #		C - Zn Acetate		O - AsNaO2												
Email asweeney@rouxinc.com		Purchase Order Requested		D - Nitric Acid		P - Na2O4S												
Project Name Mueser - Alexandria, VA		WO # 2549.0012P000		E - NaHSO4		Q - Na2SO3												
Site		Project # 41008456		F - MeOH		R - Na2S2O3												
		SSOW#		G - Amchlor		S - H2SO4												
				H - Ascorbic Acid		T - TSP Dodecahydrate												
				I - Ice		U - Acetone												
				J - DI Water		V - MCAA												
				K - EDTA		W - pH 4-5												
				L - EDA		Z - other (specify)												
						Other:												

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=soils, BT=Tissue, A=Air)	Field Filtered Sample Type	60100, 7471B, 8081B, 8082A, 8270D, Lloyd_Kahn, Moisture	8260C - TCL VOCs SOM01.2	D422 - Grain Size	8260C - TCL 1,2 VOCs	8081B, 8270D	60100, 7470A	60100, 7470A	5310C - Total Organic Carbon	2340C - Hardness, Total (mg/l as CaCO3)	Total Number of Containers	Special Instructions/Note:
BH-10 (14.5-15.0)	11/30/21	13 45	G	SO	X	N	N	N	A	N	D	N	D			

Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return-To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:			
Empty Kit Relinquished by		Date		Time		Method of Shipment	
Relinquished by	Date/Time	Company	Received by	Date/Time	Company		
<i>Edwin Hernandez</i>	11/16/21	ROUX	<i>[Signature]</i>	11/30/21 14:37	ELLE		
Relinquished by	Date/Time	Company	Received by	Date/Time	Company		
<i>[Signature]</i>	11/30/21 16:00	ELLE	<i>[Signature]</i>	11/30/21 15:50	ELLE		
Relinquished by	Date/Time	Company	Received by	Date/Time	Company		
<i>[Signature]</i>	11/30/21 17:52	ELLE	<i>[Signature]</i>	11/30/21 18:00	ELLE		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) *C and Other Remarks: 4.8			

17



Do Not Lift Using This Tag

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ORIGIN ID: INSA (217) 556-9501
SHIPPING DEPARTMENT
EURFINS, LANCASTER LABS, INC.
2425 NEW HOLLAND PIKE
LANCASTER, PA 17601
UNITED STATES US

SHIP DATE: 03DEC21
ACTWT: 17.65 LB
CPO: 614137CAFE3506
DIMS: 15x12x11 IN
BILL SENDER

10 SAMPLE RECEIVING
TEST AMERICA
301 ALPHA DRIVE
RIDG PARK

PITTSBURGH PA 15238

(412) 963-7068
DEPT: 4031

Waybill
89069-10-414



J21102012110104

570C3/F934/RF48

TRK# 1036 8603 9909
0201

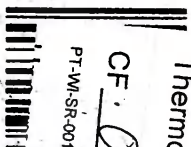
SATURDAY 12:00P
PRIORITY OVERNIGHT

NO AGCA

15238
PA-US
PIT

Uncorrected temp
Thermometer ID

CF. 0 Initials



PT-W-SR-001 effective 11/8/18

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Part # 156148-434 MTW EXP 08/22

Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-65068-1

Login Number: 65068

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Slagle, Vaiyanna

Question	Answer	Comment
The cooler's custody seal is intact.	True	
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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	

DRAFT



Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-65068-1

Login Number: 65068
List Number: 2
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh
List Creation: 12/04/21 03:06 PM

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.	True	
Sample custody seals, if present, are intact.	True	
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?	N/A	
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	



ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-65209-1
Client Project/Site: Mueser - Alexandria

For:
Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
12/14/2021 12:28:29 AM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Kelly Tessier

Kelly Tessier
Project Manager
12/14/2021 12:28:29 AM



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DRAFT

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
cn	Refer to Case Narrative for further detail
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.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
^5+	Linear Range Check (LRC) 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.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
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

DRAFT



Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Job ID: 410-65209-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-65209-1

Receipt

The samples were received on 12/1/2021 5:26 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

A trip blank was not submitted for analysis with this sample shipment; and was not listed on the Chain of Custody (COC).

GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-202219 recovered outside acceptance criteria, low biased, for 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, Freon 113 and Dichlorodifluoromethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-202219 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The continuing calibration verification (CCV) analyzed on analytical batch 410-202219 is compliant under 8260C method criteria for Carbon disulfide. The software does not display the % Drift data to the whole number as is listed in the method (i.e. limit of 20%). When applying the evaluation to a whole number, the check passes the criteria with a value of 20% Drift. GI-15P (410-65209-1), GI-13P (410-65209-2), PS-04P (410-65209-3) and PS-04AP (410-65209-4)

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

GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 410-203085 was below the method criteria for the following analyte(s): 2,4-Dinitrophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: The continuing calibration verification (CCV) associated with batch 410-203085 recovered above the upper control limit for Atrazine, Benzaldehyde and Caprolactam. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The following analyte(s) recovered outside control limits for the LCS associated with preparation batch 410-201710 and analytical batch 410-203085: Chrysene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

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

Pesticides

Method 8081B: The continuing calibration verification (CCV) associated with batch 410-201019 recovered above the upper control limit for Endrin ketone, Methoxychlor and p,p'-DDT. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: GI-15P (410-65209-1), GI-13P (410-65209-2), PS-04P (410-65209-3) and PS-04AP (410-65209-4).

Method 8081B: The following samples were diluted due to the nature of the sample matrix: PS-04P (410-65209-3) and PS-04AP (410-65209-4). Elevated reporting limits (RLs) are provided.

Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Job ID: 410-65209-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Method 8081B: The method blank for preparation batch 410-201063 contained beta-BHC above the method detection limit (MDL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were 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 following sample was diluted due to the nature of the sample matrix: GI-15P (410-65209-1). Elevated reporting limits (RLs) are provided.

Method 6010D: The following samples were not filtered within 15 minutes of sample collection as required by the method: GI-15P (410-65209-1), GI-13P (410-65209-2), PS-04P (410-65209-3) and PS-04AP (410-65209-4). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 7470A: The following samples were not filtered within 15 minutes of sample collection as required by the method: GI-15P (410-65209-1), GI-13P (410-65209-2), PS-04P (410-65209-3) and PS-04AP (410-65209-4). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 7470A: The following samples were not filtered within 15 minutes of sample collection as required by the method: GI-15P (410-65209-1), GI-13P (410-65209-2), PS-04P (410-65209-3) and PS-04AP (410-65209-4). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

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

DRAFT

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Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: GI-15P

Lab Sample ID: 410-65209-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.22	J cn	0.30	0.15	mg/L	1		6010D	Total
Barium	0.16	cn	0.0050	0.0010	mg/L	1		6010D	Total Recoverable
Calcium	24	cn	0.50	0.096	mg/L	1		6010D	Total Recoverable
Iron	54	cn	0.20	0.040	mg/L	1		6010D	Total Recoverable
Magnesium	6.0	cn	0.10	0.040	mg/L	1		6010D	Total Recoverable
Manganese	1.9	cn	0.010	0.0030	mg/L	1		6010D	Total Recoverable
Potassium	7.8	cn	0.50	0.20	mg/L	1		6010D	Total Recoverable
Sodium	29	cn	1.0	0.24	mg/L	1		6010D	Total Recoverable
Barium	0.12		0.0052	0.0010	mg/L	1		6010D	Dissolved
Calcium	24		0.52	0.099	mg/L	1		6010D	Dissolved
Iron	12		0.21	0.041	mg/L	1		6010D	Dissolved
Magnesium	6.0	^5-	0.10	0.041	mg/L	1		6010D	Dissolved
Manganese	2.0		0.010	0.0031	mg/L	1		6010D	Dissolved
Potassium	7.7		0.52	0.21	mg/L	1		6010D	Dissolved
Sodium	29		1.0	0.25	mg/L	1		6010D	Dissolved

Client Sample ID: GI-13P

Lab Sample ID: 410-65209-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.72	J cn	20	0.70	ug/L	1		8260C	Total/NA
4-Methylphenol	1.2	J cn	2.0	0.49	ug/L	1		8270D	Total/NA
Aluminum	2.6		0.30	0.15	mg/L	1		6010D	Total Recoverable
Barium	0.12		0.0050	0.0010	mg/L	1		6010D	Total Recoverable
Calcium	210		0.50	0.096	mg/L	1		6010D	Total Recoverable
Chromium	0.0044	J	0.015	0.0016	mg/L	1		6010D	Total Recoverable
Iron	7.4		0.20	0.040	mg/L	1		6010D	Total Recoverable
Magnesium	13		0.10	0.040	mg/L	1		6010D	Total Recoverable
Manganese	2.0		0.010	0.0030	mg/L	1		6010D	Total Recoverable
Nickel	0.0038	J	0.010	0.0021	mg/L	1		6010D	Total Recoverable
Potassium	35		0.50	0.20	mg/L	1		6010D	Total Recoverable
Sodium	63		1.0	0.24	mg/L	1		6010D	Total Recoverable
Zinc	0.0089	J	0.020	0.0037	mg/L	1		6010D	Total Recoverable
Vanadium	0.0066	J	0.010	0.0019	mg/L	1		6010D	Total Recoverable
Barium	0.065		0.0052	0.0010	mg/L	1		6010D	Dissolved
Calcium	210		0.52	0.099	mg/L	1		6010D	Dissolved
Iron	0.61		0.21	0.041	mg/L	1		6010D	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: GI-13P (Continued)

Lab Sample ID: 410-65209-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	12	^5-	0.10	0.041	mg/L	1		6010D	Dissolved
Manganese	1.8		0.010	0.0031	mg/L	1		6010D	Dissolved
Potassium	33		0.52	0.21	mg/L	1		6010D	Dissolved
Sodium	64		1.0	0.25	mg/L	1		6010D	Dissolved

Client Sample ID: PS-04P

Lab Sample ID: 410-65209-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13	J cn	20	0.70	ug/L	1		8260C	Total/NA
2-Butanone	1.8	J cn	10	0.50	ug/L	1		8260C	Total/NA
Acenaphthene	0.18	J cn	0.49	0.098	ug/L	1		8270D	Total/NA
Anthracene	0.11	J cn	0.49	0.098	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.18	J cn	0.49	0.098	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.20	J cn	0.49	0.11	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.24	J cn	0.49	0.098	ug/L	1		8270D	Total/NA
Benzo[g,h,i]perylene	0.14	J cn	0.49	0.098	ug/L	1		8270D	Total/NA
Chrysene	0.18	J *- cn	0.49	0.098	ug/L	1		8270D	Total/NA
Fluoranthene	0.44	J cn	0.49	0.098	ug/L	1		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.14	J cn	0.49	0.11	ug/L	1		8270D	Total/NA
Phenanthrene	0.38	J cn	0.49	0.11	ug/L	1		8270D	Total/NA
Pyrene	0.41	J cn	0.49	0.098	ug/L	1		8270D	Total/NA
Aluminum	13		0.30	0.15	mg/L	1		6010D	Total Recoverable
Barium	0.29		0.0050	0.0010	mg/L	1		6010D	Total Recoverable
Cadmium	0.0011	J	0.0050	0.0010	mg/L	1		6010D	Total Recoverable
Calcium	100		0.50	0.096	mg/L	1		6010D	Total Recoverable
Chromium	0.027		0.015	0.0016	mg/L	1		6010D	Total Recoverable
Cobalt	0.0096		0.0050	0.0015	mg/L	1		6010D	Total Recoverable
Copper	0.077		0.020	0.012	mg/L	1		6010D	Total Recoverable
Iron	41		0.20	0.040	mg/L	1		6010D	Total Recoverable
Lead	0.12		0.015	0.0071	mg/L	1		6010D	Total Recoverable
Magnesium	15		0.10	0.040	mg/L	1		6010D	Total Recoverable
Manganese	1.1		0.010	0.0030	mg/L	1		6010D	Total Recoverable
Nickel	0.034		0.010	0.0021	mg/L	1		6010D	Total Recoverable
Potassium	17		0.50	0.20	mg/L	1		6010D	Total Recoverable
Sodium	31		1.0	0.24	mg/L	1		6010D	Total Recoverable
Zinc	0.16		0.020	0.0037	mg/L	1		6010D	Total Recoverable
Vanadium	0.033		0.010	0.0019	mg/L	1		6010D	Total Recoverable
Barium	0.16		0.0052	0.0010	mg/L	1		6010D	Dissolved
Calcium	96		0.52	0.099	mg/L	1		6010D	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: PS-04P (Continued)

Lab Sample ID: 410-65209-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.0040	J	0.015	0.0016	mg/L	1		6010D	Dissolved
Iron	4.1		0.21	0.041	mg/L	1		6010D	Dissolved
Magnesium	13	^5-	0.10	0.041	mg/L	1		6010D	Dissolved
Manganese	0.77		0.010	0.0031	mg/L	1		6010D	Dissolved
Nickel	0.0023	J	0.010	0.0022	mg/L	1		6010D	Dissolved
Potassium	16		0.52	0.21	mg/L	1		6010D	Dissolved
Sodium	32		1.0	0.25	mg/L	1		6010D	Dissolved
Zinc	0.0056	J	0.021	0.0038	mg/L	1		6010D	Dissolved
Vanadium	0.0034	J	0.010	0.0020	mg/L	1		6010D	Dissolved
Mercury	0.14	J	0.20	0.079	ug/L	1		7470A	Total/NA

Client Sample ID: PS-04AP

Lab Sample ID: 410-65209-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.15	J cn	0.48	0.097	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.11	J cn	0.48	0.097	ug/L	1		8270D	Total/NA
Fluoranthene	0.26	J cn	0.48	0.097	ug/L	1		8270D	Total/NA
Phenanthrene	0.14	J cn	0.48	0.11	ug/L	1		8270D	Total/NA
Pyrene	0.90	cn	0.48	0.097	ug/L	1		8270D	Total/NA
Aluminum	0.85		0.30	0.15	mg/L	1		6010D	Total Recoverable
Barium	0.066		0.0050	0.0010	mg/L	1		6010D	Total Recoverable
Calcium	280		0.50	0.096	mg/L	1		6010D	Total Recoverable
Chromium	0.0017	J	0.015	0.0016	mg/L	1		6010D	Total Recoverable
Cobalt	0.0023	J	0.0050	0.0015	mg/L	1		6010D	Total Recoverable
Copper	0.013	J	0.020	0.012	mg/L	1		6010D	Total Recoverable
Iron	4.6		0.20	0.040	mg/L	1		6010D	Total Recoverable
Lead	0.020		0.015	0.0071	mg/L	1		6010D	Total Recoverable
Magnesium	24		0.10	0.040	mg/L	1		6010D	Total Recoverable
Manganese	1.4		0.010	0.0030	mg/L	1		6010D	Total Recoverable
Potassium	67		0.50	0.20	mg/L	1		6010D	Total Recoverable
Sodium	64		1.0	0.24	mg/L	1		6010D	Total Recoverable
Zinc	0.11		0.020	0.0037	mg/L	1		6010D	Total Recoverable
Vanadium	0.0019	J	0.010	0.0019	mg/L	1		6010D	Total Recoverable
Barium	0.036		0.0052	0.0010	mg/L	1		6010D	Dissolved
Calcium	270		0.52	0.099	mg/L	1		6010D	Dissolved
Magnesium	23	^5-	0.10	0.041	mg/L	1		6010D	Dissolved
Manganese	1.3		0.010	0.0031	mg/L	1		6010D	Dissolved
Potassium	66		0.52	0.21	mg/L	1		6010D	Dissolved
Sodium	64		1.0	0.25	mg/L	1		6010D	Dissolved
Zinc	0.0077	J	0.021	0.0038	mg/L	1		6010D	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: GI-15P

Lab Sample ID: 410-65209-1

Date Collected: 12/01/21 09:55

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:10	1
trans-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:10	1
Ethylbenzene	0.40	U cn	1.0	0.40	ug/L			12/07/21 20:10	1
Styrene	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:10	1
1,4-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:10	1
1,2-Dibromoethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:10	1
1,2-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
4-Methyl-2-pentanone	0.50	U cn	10	0.50	ug/L			12/07/21 20:10	1
Methylcyclohexane	0.50	U cn	5.0	0.50	ug/L			12/07/21 20:10	1
Toluene	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:10	1
Chlorobenzene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
Cyclohexane	1.0	U cn	5.0	1.0	ug/L			12/07/21 20:10	1
1,2,4-Trichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:10	1
1,4-Dioxane	29	U cn	250	29	ug/L			12/07/21 20:10	1
Dibromochloromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:10	1
Tetrachloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
cis-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
trans-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
Methyl tertiary butyl ether	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:10	1
m&p-Xylene	2.0	U cn	5.0	2.0	ug/L			12/07/21 20:10	1
1,3-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:10	1
Carbon tetrachloride	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
2-Hexanone	0.40	U cn	10	0.40	ug/L			12/07/21 20:10	1
Acetone	0.70	U cn	20	0.70	ug/L			12/07/21 20:10	1
Chloroform	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
Benzene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
1,1,1-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
Bromomethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
Chloromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:10	1
Bromochloromethane	0.20	U cn	5.0	0.20	ug/L			12/07/21 20:10	1
Chloroethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:10	1
Vinyl chloride	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:10	1
Methylene Chloride	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
Carbon disulfide	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:10	1
Bromoform	1.0	U cn	4.0	1.0	ug/L			12/07/21 20:10	1
Bromodichloromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:10	1
1,1-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
1,1-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
Trichlorofluoromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:10	1
Dichlorodifluoromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:10	1
Freon 113	0.30	U cn	10	0.30	ug/L			12/07/21 20:10	1
1,2-Dichloropropane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
2-Butanone	0.50	U cn	10	0.50	ug/L			12/07/21 20:10	1
1,1,2-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
Trichloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
Methyl acetate	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:10	1
1,1,2,2-Tetrachloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:10	1
1,2,3-Trichlorobenzene	0.40	U cn	5.0	0.40	ug/L			12/07/21 20:10	1
o-Xylene	0.40	U cn	1.0	0.40	ug/L			12/07/21 20:10	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: GI-15P

Lab Sample ID: 410-65209-1

Date Collected: 12/01/21 09:55

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	0.20	U cn	5.0	0.20	ug/L			12/07/21 20:10	1
1,2-Dibromo-3-Chloropropane	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:10	1
Isopropylbenzene	0.20	U cn	5.0	0.20	ug/L			12/07/21 20:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97	cn	80 - 120					12/07/21 20:10	1
4-Bromofluorobenzene (Surr)	95	cn	80 - 120					12/07/21 20:10	1
Dibromofluoromethane (Surr)	96	cn	80 - 120					12/07/21 20:10	1
Toluene-d8 (Surr)	100	cn	80 - 120					12/07/21 20:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
1,2,4,5-Tetrachlorobenzene	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
2,2'-oxybis[1-chloropropane]	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
2,3,4,6-Tetrachlorophenol	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 00:11	1
2,4,5-Trichlorophenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
2,4,6-Trichlorophenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
2,4-Dichlorophenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
2,4-Dimethylphenol	2.9	U cn	9.8	2.9	ug/L		12/06/21 09:16	12/09/21 00:11	1
2,4-Dinitrophenol	14	U cn	29	14	ug/L		12/06/21 09:16	12/09/21 00:11	1
2,4-Dinitrotoluene	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 00:11	1
2,6-Dinitrotoluene	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
2-Chloronaphthalene	0.39	U cn	0.98	0.39	ug/L		12/06/21 09:16	12/09/21 00:11	1
2-Chlorophenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
2-Methylnaphthalene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 00:11	1
2-Methylphenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
2-Nitroaniline	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 00:11	1
2-Nitrophenol	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 00:11	1
3,3'-Dichlorobenzidine	3.9	U cn	9.8	3.9	ug/L		12/06/21 09:16	12/09/21 00:11	1
3-Nitroaniline	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 00:11	1
4,6-Dinitro-2-methylphenol	7.8	U cn	21	7.8	ug/L		12/06/21 09:16	12/09/21 00:11	1
4-Bromophenyl-phenylether	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
4-Chloro-3-methylphenol	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 00:11	1
4-Methylphenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
4-Nitroaniline	0.88	U cn	2.9	0.88	ug/L		12/06/21 09:16	12/09/21 00:11	1
4-Nitrophenol	9.8	U cn	29	9.8	ug/L		12/06/21 09:16	12/09/21 00:11	1
Acenaphthene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 00:11	1
Acenaphthylene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 00:11	1
Acetophenone	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 00:11	1
Anthracene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 00:11	1
Atrazine	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 00:11	1
Benzaldehyde	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 00:11	1
Benzo[a]anthracene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 00:11	1
Benzo[a]pyrene	0.11	U cn	0.49	0.11	ug/L		12/06/21 09:16	12/09/21 00:11	1
Benzo[b]fluoranthene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 00:11	1
Benzo[g,h,i]perylene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 00:11	1
Benzo[k]fluoranthene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 00:11	1
Bis(2-chloroethoxy)methane	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
Bis(2-chloroethyl)ether	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: GI-15P

Lab Sample ID: 410-65209-1

Date Collected: 12/01/21 09:55

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 00:11	1
Butylbenzylphthalate	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 00:11	1
Caprolactam	2.9	U cn	6.8	2.9	ug/L		12/06/21 09:16	12/09/21 00:11	1
Carbazole	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
Chrysene	0.098	U *- cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 00:11	1
Di-n-butyl phthalate	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 00:11	1
Di-n-octyl phthalate	4.9	U cn	11	4.9	ug/L		12/06/21 09:16	12/09/21 00:11	1
Dibenz(a,h)anthracene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 00:11	1
Dibenzofuran	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
Diethyl phthalate	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 00:11	1
Dimethyl phthalate	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 00:11	1
Fluoranthene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 00:11	1
Fluorene	0.12	U cn	0.49	0.12	ug/L		12/06/21 09:16	12/09/21 00:11	1
Hexachlorobenzene	0.11	U cn	0.49	0.11	ug/L		12/06/21 09:16	12/09/21 00:11	1
Hexachlorobutadiene	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
Hexachlorocyclopentadiene	4.9	U cn	11	4.9	ug/L		12/06/21 09:16	12/09/21 00:11	1
Hexachloroethane	0.49	U cn	4.9	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
Indeno[1,2,3-cd]pyrene	0.11	U cn	0.49	0.11	ug/L		12/06/21 09:16	12/09/21 00:11	1
Isophorone	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
N-Nitrosodi-n-propylamine	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
N-Nitrosodiphenylamine	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
Naphthalene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 00:11	1
Nitrobenzene	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
Phenanthrene	0.11	U cn	0.49	0.11	ug/L		12/06/21 09:16	12/09/21 00:11	1
Phenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:11	1
Pyrene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 00:11	1
Pentachlorophenol	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 00:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	74	cn	31 - 119	12/06/21 09:16	12/09/21 00:11	1
Nitrobenzene-d5 (Surr)	74	cn	22 - 117	12/06/21 09:16	12/09/21 00:11	1
2-Fluorophenol (Surr)	2	S1- cn	10 - 78	12/06/21 09:16	12/09/21 00:11	1
2-Fluorobiphenyl (Surr)	65	cn	35 - 100	12/06/21 09:16	12/09/21 00:11	1
2,4,6-Tribromophenol (Surr)	8	S1- cn	10 - 150	12/06/21 09:16	12/09/21 00:11	1
Phenol-d5 (Surr)	5	S1- cn	10 - 67	12/06/21 09:16	12/09/21 00:11	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	0.0020	U cn	0.020	0.0020	ug/L		12/03/21 08:38	12/03/21 16:34	1
alpha-BHC (1C)	0.0029	U cn	0.020	0.0029	ug/L		12/03/21 08:38	12/03/21 16:34	1
alpha-Chlordane (1C)	0.0029	U cn	0.020	0.0029	ug/L		12/03/21 08:38	12/03/21 16:34	1
beta-BHC (2C)	0.0033	U cn	0.020	0.0033	ug/L		12/03/21 08:38	12/03/21 16:34	1
delta-BHC (1C)	0.0033	U cn	0.020	0.0033	ug/L		12/03/21 08:38	12/03/21 16:34	1
Dieldrin (1C)	0.0052	U cn	0.029	0.0052	ug/L		12/03/21 08:38	12/03/21 16:34	1
Endosulfan I (1C)	0.0042	U cn	0.020	0.0042	ug/L		12/03/21 08:38	12/03/21 16:34	1
Endosulfan II (1C)	0.015	U cn	0.039	0.015	ug/L		12/03/21 08:38	12/03/21 16:34	1
Endosulfan sulfate (1C)	0.0057	U cn	0.029	0.0057	ug/L		12/03/21 08:38	12/03/21 16:34	1
Endrin (1C)	0.0079	U cn	0.029	0.0079	ug/L		12/03/21 08:38	12/03/21 16:34	1
Endrin aldehyde (1C)	0.020	U cn	0.098	0.020	ug/L		12/03/21 08:38	12/03/21 16:34	1
Endrin ketone (1C)	0.0049	U cn	0.029	0.0049	ug/L		12/03/21 08:38	12/03/21 16:34	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: GI-15P

Lab Sample ID: 410-65209-1

Date Collected: 12/01/21 09:55

Matrix: Water

Date Received: 12/01/21 17:26

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

Table with 10 columns: Analyte, Result, Qualifier, RL, MDL, Unit, D, Prepared, Analyzed, Dil Fac. Rows include gamma-BHC (Lindane) (1C), gamma-Chlordane (1C), Heptachlor (1C), Heptachlor epoxide (1C), Methoxychlor (1C), Toxaphene (1C), p,p'-DDD (1C), p,p'-DDE (1C), and p,p'-DDT (1C).

Table with 6 columns: Surrogate, %Recovery, Qualifier, Limits, Prepared, Analyzed, Dil Fac. Rows include DCB Decachlorobiphenyl (Surr) (1C), DCB Decachlorobiphenyl (Surr) (2C), Tetrachloro-m-xylene (Surr) (1C), and Tetrachloro-m-xylene (Surr) (2C).

Method: 6010D - Metals (ICP) - Total Recoverable

Table with 10 columns: Analyte, Result, Qualifier, RL, MDL, Unit, D, Prepared, Analyzed, Dil Fac. Rows include Antimony, Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Zinc, and Vanadium.

Method: 6010D - Metals (ICP) - Dissolved

Table with 10 columns: Analyte, Result, Qualifier, RL, MDL, Unit, D, Prepared, Analyzed, Dil Fac. Rows include Antimony, Aluminum, Arsenic, Barium, Beryllium, and Cadmium.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: GI-15P

Lab Sample ID: 410-65209-1

Date Collected: 12/01/21 09:55

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	24		0.52	0.099	mg/L		12/03/21 10:38	12/08/21 11:39	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/03/21 10:38	12/08/21 11:39	1
Cobalt	0.0015	U	0.0052	0.0015	mg/L		12/03/21 10:38	12/08/21 11:39	1
Copper	0.012	U	0.021	0.012	mg/L		12/03/21 10:38	12/08/21 11:39	1
Iron	12		0.21	0.041	mg/L		12/03/21 10:38	12/08/21 11:39	1
Lead	0.0073	U ^3+	0.015	0.0073	mg/L		12/03/21 10:38	12/08/21 11:39	1
Magnesium	6.0	^5-	0.10	0.041	mg/L		12/03/21 10:38	12/08/21 11:39	1
Manganese	2.0		0.010	0.0031	mg/L		12/03/21 10:38	12/08/21 11:39	1
Nickel	0.0022	U	0.010	0.0022	mg/L		12/03/21 10:38	12/08/21 11:39	1
Potassium	7.7		0.52	0.21	mg/L		12/03/21 10:38	12/08/21 11:39	1
Selenium	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 11:39	1
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/03/21 10:38	12/08/21 11:39	1
Sodium	29		1.0	0.25	mg/L		12/03/21 10:38	12/08/21 11:39	1
Thallium	0.0083	U	0.031	0.0083	mg/L		12/03/21 10:38	12/08/21 15:26	1
Zinc	0.0038	U	0.021	0.0038	mg/L		12/03/21 10:38	12/08/21 11:39	1
Vanadium	0.0020	U	0.010	0.0020	mg/L		12/03/21 10:38	12/08/21 11:39	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/02/21 21:44	12/03/21 13:23	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/03/21 07:59	12/03/21 14:30	1

Client Sample ID: GI-13P

Lab Sample ID: 410-65209-2

Date Collected: 12/01/21 11:10

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:32	1
trans-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:32	1
Ethylbenzene	0.40	U cn	1.0	0.40	ug/L			12/07/21 20:32	1
Styrene	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:32	1
1,4-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:32	1
1,2-Dibromoethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:32	1
1,2-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
4-Methyl-2-pentanone	0.50	U cn	10	0.50	ug/L			12/07/21 20:32	1
Methylcyclohexane	0.50	U cn	5.0	0.50	ug/L			12/07/21 20:32	1
Toluene	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:32	1
Chlorobenzene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
Cyclohexane	1.0	U cn	5.0	1.0	ug/L			12/07/21 20:32	1
1,2,4-Trichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:32	1
1,4-Dioxane	29	U cn	250	29	ug/L			12/07/21 20:32	1
Dibromochloromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:32	1
Tetrachloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
cis-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
trans-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
Methyl tertiary butyl ether	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:32	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: GI-13P

Lab Sample ID: 410-65209-2

Date Collected: 12/01/21 11:10

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m&p-Xylene	2.0	U cn	5.0	2.0	ug/L			12/07/21 20:32	1
1,3-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:32	1
Carbon tetrachloride	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
2-Hexanone	0.40	U cn	10	0.40	ug/L			12/07/21 20:32	1
Acetone	0.72	J cn	20	0.70	ug/L			12/07/21 20:32	1
Chloroform	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
Benzene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
1,1,1-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
Bromomethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
Chloromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:32	1
Bromochloromethane	0.20	U cn	5.0	0.20	ug/L			12/07/21 20:32	1
Chloroethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:32	1
Vinyl chloride	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:32	1
Methylene Chloride	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
Carbon disulfide	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:32	1
Bromoform	1.0	U cn	4.0	1.0	ug/L			12/07/21 20:32	1
Bromodichloromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:32	1
1,1-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
1,1-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
Trichlorofluoromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:32	1
Dichlorodifluoromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:32	1
Freon 113	0.30	U cn	10	0.30	ug/L			12/07/21 20:32	1
1,2-Dichloropropane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
2-Butanone	0.50	U cn	10	0.50	ug/L			12/07/21 20:32	1
1,1,2-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
Trichloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
Methyl acetate	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:32	1
1,1,2,2-Tetrachloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:32	1
1,2,3-Trichlorobenzene	0.40	U cn	5.0	0.40	ug/L			12/07/21 20:32	1
o-Xylene	0.40	U cn	1.0	0.40	ug/L			12/07/21 20:32	1
1,2-Dichlorobenzene	0.20	U cn	5.0	0.20	ug/L			12/07/21 20:32	1
1,2-Dibromo-3-Chloropropane	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:32	1
Isopropylbenzene	0.20	U cn	5.0	0.20	ug/L			12/07/21 20:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97	cn	80 - 120		12/07/21 20:32	1
4-Bromofluorobenzene (Surr)	97	cn	80 - 120		12/07/21 20:32	1
Dibromofluoromethane (Surr)	96	cn	80 - 120		12/07/21 20:32	1
Toluene-d8 (Surr)	100	cn	80 - 120		12/07/21 20:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
1,2,4,5-Tetrachlorobenzene	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
2,2'-oxybis[1-chloropropane]	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
2,3,4,6-Tetrachlorophenol	0.99	U cn	4.9	0.99	ug/L		12/06/21 09:16	12/09/21 00:40	1
2,4,5-Trichlorophenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
2,4,6-Trichlorophenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
2,4-Dichlorophenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
2,4-Dimethylphenol	3.0	U cn	9.9	3.0	ug/L		12/06/21 09:16	12/09/21 00:40	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: GI-13P

Lab Sample ID: 410-65209-2

Date Collected: 12/01/21 11:10

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	14	U cn	30	14	ug/L		12/06/21 09:16	12/09/21 00:40	1
2,4-Dinitrotoluene	0.99	U cn	4.9	0.99	ug/L		12/06/21 09:16	12/09/21 00:40	1
2,6-Dinitrotoluene	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
2-Chloronaphthalene	0.39	U cn	0.99	0.39	ug/L		12/06/21 09:16	12/09/21 00:40	1
2-Chlorophenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
2-Methylnaphthalene	0.099	U cn	0.49	0.099	ug/L		12/06/21 09:16	12/09/21 00:40	1
2-Methylphenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
2-Nitroaniline	0.99	U cn	4.9	0.99	ug/L		12/06/21 09:16	12/09/21 00:40	1
2-Nitrophenol	0.99	U cn	4.9	0.99	ug/L		12/06/21 09:16	12/09/21 00:40	1
3,3'-Dichlorobenzidine	3.9	U cn	9.9	3.9	ug/L		12/06/21 09:16	12/09/21 00:40	1
3-Nitroaniline	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 00:40	1
4,6-Dinitro-2-methylphenol	7.9	U cn	21	7.9	ug/L		12/06/21 09:16	12/09/21 00:40	1
4-Bromophenyl-phenylether	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
4-Chloro-3-methylphenol	0.99	U cn	4.9	0.99	ug/L		12/06/21 09:16	12/09/21 00:40	1
4-Methylphenol	1.2	J cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
4-Nitroaniline	0.89	U cn	3.0	0.89	ug/L		12/06/21 09:16	12/09/21 00:40	1
4-Nitrophenol	9.9	U cn	30	9.9	ug/L		12/06/21 09:16	12/09/21 00:40	1
Acenaphthene	0.099	U cn	0.49	0.099	ug/L		12/06/21 09:16	12/09/21 00:40	1
Acenaphthylene	0.099	U cn	0.49	0.099	ug/L		12/06/21 09:16	12/09/21 00:40	1
Acetophenone	0.99	U cn	4.9	0.99	ug/L		12/06/21 09:16	12/09/21 00:40	1
Anthracene	0.099	U cn	0.49	0.099	ug/L		12/06/21 09:16	12/09/21 00:40	1
Atrazine	0.99	U cn	4.9	0.99	ug/L		12/06/21 09:16	12/09/21 00:40	1
Benzaldehyde	0.99	U cn	4.9	0.99	ug/L		12/06/21 09:16	12/09/21 00:40	1
Benzo[a]anthracene	0.099	U cn	0.49	0.099	ug/L		12/06/21 09:16	12/09/21 00:40	1
Benzo[a]pyrene	0.11	U cn	0.49	0.11	ug/L		12/06/21 09:16	12/09/21 00:40	1
Benzo[b]fluoranthene	0.099	U cn	0.49	0.099	ug/L		12/06/21 09:16	12/09/21 00:40	1
Benzo[g,h,i]perylene	0.099	U cn	0.49	0.099	ug/L		12/06/21 09:16	12/09/21 00:40	1
Benzo[k]fluoranthene	0.099	U cn	0.49	0.099	ug/L		12/06/21 09:16	12/09/21 00:40	1
Bis(2-chloroethoxy)methane	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
Bis(2-chloroethyl)ether	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
Bis(2-ethylhexyl) phthalate	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 00:40	1
Butylbenzylphthalate	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 00:40	1
Caprolactam	3.0	U cn	6.9	3.0	ug/L		12/06/21 09:16	12/09/21 00:40	1
Carbazole	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
Chrysene	0.099	U *- cn	0.49	0.099	ug/L		12/06/21 09:16	12/09/21 00:40	1
Di-n-butyl phthalate	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 00:40	1
Di-n-octyl phthalate	4.9	U cn	11	4.9	ug/L		12/06/21 09:16	12/09/21 00:40	1
Dibenz(a,h)anthracene	0.099	U cn	0.49	0.099	ug/L		12/06/21 09:16	12/09/21 00:40	1
Dibenzofuran	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
Diethyl phthalate	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 00:40	1
Dimethyl phthalate	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 00:40	1
Fluoranthene	0.099	U cn	0.49	0.099	ug/L		12/06/21 09:16	12/09/21 00:40	1
Fluorene	0.12	U cn	0.49	0.12	ug/L		12/06/21 09:16	12/09/21 00:40	1
Hexachlorobenzene	0.11	U cn	0.49	0.11	ug/L		12/06/21 09:16	12/09/21 00:40	1
Hexachlorobutadiene	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
Hexachlorocyclopentadiene	4.9	U cn	11	4.9	ug/L		12/06/21 09:16	12/09/21 00:40	1
Hexachloroethane	0.49	U cn	4.9	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
Indeno[1,2,3-cd]pyrene	0.11	U cn	0.49	0.11	ug/L		12/06/21 09:16	12/09/21 00:40	1
Isophorone	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: GI-13P

Lab Sample ID: 410-65209-2

Date Collected: 12/01/21 11:10

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
N-Nitrosodiphenylamine	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
Naphthalene	0.099	U cn	0.49	0.099	ug/L		12/06/21 09:16	12/09/21 00:40	1
Nitrobenzene	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
Phenanthrene	0.11	U cn	0.49	0.11	ug/L		12/06/21 09:16	12/09/21 00:40	1
Phenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 00:40	1
Pyrene	0.099	U cn	0.49	0.099	ug/L		12/06/21 09:16	12/09/21 00:40	1
Pentachlorophenol	0.99	U cn	4.9	0.99	ug/L		12/06/21 09:16	12/09/21 00:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	83	cn	31 - 119				12/06/21 09:16	12/09/21 00:40	1
Nitrobenzene-d5 (Surr)	82	cn	22 - 117				12/06/21 09:16	12/09/21 00:40	1
2-Fluorophenol (Surr)	51	cn	10 - 78				12/06/21 09:16	12/09/21 00:40	1
2-Fluorobiphenyl (Surr)	70	cn	35 - 100				12/06/21 09:16	12/09/21 00:40	1
2,4,6-Tribromophenol (Surr)	91	cn	10 - 150				12/06/21 09:16	12/09/21 00:40	1
Phenol-d5 (Surr)	49	cn	10 - 67				12/06/21 09:16	12/09/21 00:40	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	0.0020	U cn	0.020	0.0020	ug/L		12/03/21 08:38	12/03/21 17:06	1
alpha-BHC (1C)	0.0030	U cn	0.020	0.0030	ug/L		12/03/21 08:38	12/03/21 17:06	1
alpha-Chlordane (1C)	0.0030	U cn	0.020	0.0030	ug/L		12/03/21 08:38	12/03/21 17:06	1
beta-BHC (2C)	0.0034	U cn	0.020	0.0034	ug/L		12/03/21 08:38	12/03/21 17:06	1
delta-BHC (1C)	0.0034	U cn	0.020	0.0034	ug/L		12/03/21 08:38	12/03/21 17:06	1
Dieldrin (1C)	0.0053	U cn	0.030	0.0053	ug/L		12/03/21 08:38	12/03/21 17:06	1
Endosulfan I (1C)	0.0043	U cn	0.020	0.0043	ug/L		12/03/21 08:38	12/03/21 17:06	1
Endosulfan II (1C)	0.015	U cn	0.040	0.015	ug/L		12/03/21 08:38	12/03/21 17:06	1
Endosulfan sulfate (1C)	0.0058	U cn	0.030	0.0058	ug/L		12/03/21 08:38	12/03/21 17:06	1
Endrin (1C)	0.0080	U cn	0.030	0.0080	ug/L		12/03/21 08:38	12/03/21 17:06	1
Endrin aldehyde (1C)	0.020	U cn	0.099	0.020	ug/L		12/03/21 08:38	12/03/21 17:06	1
Endrin ketone (1C)	0.0050	U cn	0.030	0.0050	ug/L		12/03/21 08:38	12/03/21 17:06	1
gamma-BHC (Lindane) (1C)	0.0020	U cn	0.020	0.0020	ug/L		12/03/21 08:38	12/03/21 17:06	1
gamma-Chlordane (1C)	0.0069	U cn	0.040	0.0069	ug/L		12/03/21 08:38	12/03/21 17:06	1
Heptachlor (1C)	0.0020	U cn	0.020	0.0020	ug/L		12/03/21 08:38	12/03/21 17:06	1
Heptachlor epoxide (1C)	0.0023	U cn	0.020	0.0023	ug/L		12/03/21 08:38	12/03/21 17:06	1
Methoxychlor (1C)	0.030	U cn	0.11	0.030	ug/L		12/03/21 08:38	12/03/21 17:06	1
Toxaphene (1C)	0.30	U cn	0.99	0.30	ug/L		12/03/21 08:38	12/03/21 17:06	1
p,p'-DDD (1C)	0.0050	U cn	0.030	0.0050	ug/L		12/03/21 08:38	12/03/21 17:06	1
p,p'-DDE (1C)	0.0050	U cn	0.030	0.0050	ug/L		12/03/21 08:38	12/03/21 17:06	1
p,p'-DDT (1C)	0.0052	U cn	0.030	0.0052	ug/L		12/03/21 08:38	12/03/21 17:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	50	cn	20 - 149				12/03/21 08:38	12/03/21 17:06	1
DCB Decachlorobiphenyl (Surr) (2C)	51	cn	20 - 149				12/03/21 08:38	12/03/21 17:06	1
Tetrachloro-m-xylene (Surr) (1C)	80	cn	20 - 129				12/03/21 08:38	12/03/21 17:06	1
Tetrachloro-m-xylene (Surr) (2C)	79	cn	20 - 129				12/03/21 08:38	12/03/21 17:06	1

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.050	0.016	mg/L		12/02/21 20:15	12/03/21 22:02	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: GI-13P

Lab Sample ID: 410-65209-2

Date Collected: 12/01/21 11:10

Matrix: Water

Date Received: 12/01/21 17:26

Method: 6010D - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2.6		0.30	0.15	mg/L		12/02/21 20:15	12/03/21 22:02	1
Arsenic	0.016	U	0.050	0.016	mg/L		12/02/21 20:15	12/07/21 13:00	1
Barium	0.12		0.0050	0.0010	mg/L		12/02/21 20:15	12/03/21 22:02	1
Beryllium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:15	12/03/21 22:02	1
Cadmium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:15	12/03/21 22:02	1
Calcium	210		0.50	0.096	mg/L		12/02/21 20:15	12/03/21 22:02	1
Chromium	0.0044	J	0.015	0.0016	mg/L		12/02/21 20:15	12/03/21 22:02	1
Cobalt	0.0015	U	0.0050	0.0015	mg/L		12/02/21 20:15	12/03/21 22:02	1
Copper	0.012	U	0.020	0.012	mg/L		12/02/21 20:15	12/03/21 22:02	1
Iron	7.4		0.20	0.040	mg/L		12/02/21 20:15	12/03/21 22:02	1
Lead	0.0071	U	0.015	0.0071	mg/L		12/02/21 20:15	12/03/21 22:02	1
Magnesium	13		0.10	0.040	mg/L		12/02/21 20:15	12/03/21 22:02	1
Manganese	2.0		0.010	0.0030	mg/L		12/02/21 20:15	12/03/21 22:02	1
Nickel	0.0038	J	0.010	0.0021	mg/L		12/02/21 20:15	12/03/21 22:02	1
Potassium	35		0.50	0.20	mg/L		12/02/21 20:15	12/07/21 13:00	1
Selenium	0.016	U	0.050	0.016	mg/L		12/02/21 20:15	12/03/21 22:02	1
Silver	0.0050	U ^5-	0.010	0.0050	mg/L		12/02/21 20:15	12/03/21 22:02	1
Sodium	63		1.0	0.24	mg/L		12/02/21 20:15	12/03/21 22:02	1
Thallium	0.0081	U	0.030	0.0081	mg/L		12/02/21 20:15	12/07/21 13:00	1
Zinc	0.0089	J	0.020	0.0037	mg/L		12/02/21 20:15	12/03/21 22:02	1
Vanadium	0.0066	J	0.010	0.0019	mg/L		12/02/21 20:15	12/03/21 22:02	1

Method: 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 12:47	1
Aluminum	0.16	U	0.31	0.16	mg/L		12/03/21 10:47	12/06/21 12:47	1
Arsenic	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 12:47	1
Barium	0.065		0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 12:47	1
Beryllium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 12:47	1
Cadmium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 12:47	1
Calcium	210		0.52	0.099	mg/L		12/03/21 10:47	12/06/21 12:47	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/03/21 10:47	12/06/21 12:47	1
Cobalt	0.0015	U	0.0052	0.0015	mg/L		12/03/21 10:47	12/06/21 12:47	1
Copper	0.012	U	0.021	0.012	mg/L		12/03/21 10:47	12/06/21 12:47	1
Iron	0.61		0.21	0.041	mg/L		12/03/21 10:47	12/06/21 12:47	1
Lead	0.0073	U ^3+	0.015	0.0073	mg/L		12/03/21 10:47	12/06/21 12:47	1
Magnesium	12	^5-	0.10	0.041	mg/L		12/03/21 10:47	12/06/21 12:47	1
Manganese	1.8		0.010	0.0031	mg/L		12/03/21 10:47	12/06/21 12:47	1
Nickel	0.0022	U	0.010	0.0022	mg/L		12/03/21 10:47	12/06/21 12:47	1
Potassium	33		0.52	0.21	mg/L		12/03/21 10:47	12/07/21 10:43	1
Selenium	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 12:47	1
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/03/21 10:47	12/06/21 12:47	1
Sodium	64		1.0	0.25	mg/L		12/03/21 10:47	12/06/21 12:47	1
Thallium	0.0083	U	0.031	0.0083	mg/L		12/03/21 10:47	12/06/21 12:47	1
Zinc	0.0038	U	0.021	0.0038	mg/L		12/03/21 10:47	12/06/21 12:47	1
Vanadium	0.0020	U	0.010	0.0020	mg/L		12/03/21 10:47	12/06/21 12:47	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/02/21 21:44	12/03/21 13:33	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: GI-13P

Lab Sample ID: 410-65209-2

Date Collected: 12/01/21 11:10

Matrix: Water

Date Received: 12/01/21 17:26

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/03/21 07:59	12/03/21 14:32	1

Client Sample ID: PS-04P

Lab Sample ID: 410-65209-3

Date Collected: 12/01/21 12:15

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:54	1
trans-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:54	1
Ethylbenzene	0.40	U cn	1.0	0.40	ug/L			12/07/21 20:54	1
Styrene	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:54	1
1,4-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:54	1
1,2-Dibromoethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:54	1
1,2-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1
4-Methyl-2-pentanone	0.50	U cn	10	0.50	ug/L			12/07/21 20:54	1
Methylcyclohexane	0.50	U cn	5.0	0.50	ug/L			12/07/21 20:54	1
Toluene	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:54	1
Chlorobenzene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1
Cyclohexane	1.0	U cn	5.0	1.0	ug/L			12/07/21 20:54	1
1,2,4-Trichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:54	1
1,4-Dioxane	29	U cn	250	29	ug/L			12/07/21 20:54	1
Dibromochloromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:54	1
Tetrachloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1
cis-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1
trans-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1
Methyl tertiary butyl ether	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:54	1
m&p-Xylene	2.0	U cn	5.0	2.0	ug/L			12/07/21 20:54	1
1,3-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:54	1
Carbon tetrachloride	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1
2-Hexanone	0.40	U cn	10	0.40	ug/L			12/07/21 20:54	1
Acetone	13	J cn	20	0.70	ug/L			12/07/21 20:54	1
Chloroform	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1
Benzene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1
1,1,1-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1
Bromomethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1
Chloromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:54	1
Bromochloromethane	0.20	U cn	5.0	0.20	ug/L			12/07/21 20:54	1
Chloroethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:54	1
Vinyl chloride	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:54	1
Methylene Chloride	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1
Carbon disulfide	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:54	1
Bromoform	1.0	U cn	4.0	1.0	ug/L			12/07/21 20:54	1
Bromodichloromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:54	1
1,1-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1
1,1-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1
Trichlorofluoromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:54	1
Dichlorodifluoromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 20:54	1
Freon 113	0.30	U cn	10	0.30	ug/L			12/07/21 20:54	1
1,2-Dichloropropane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: PS-04P

Lab Sample ID: 410-65209-3

Date Collected: 12/01/21 12:15

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone	1.8	J cn	10	0.50	ug/L			12/07/21 20:54	1
1,1,2-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1
Trichloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1
Methyl acetate	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:54	1
1,1,2,2-Tetrachloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 20:54	1
1,2,3-Trichlorobenzene	0.40	U cn	5.0	0.40	ug/L			12/07/21 20:54	1
o-Xylene	0.40	U cn	1.0	0.40	ug/L			12/07/21 20:54	1
1,2-Dichlorobenzene	0.20	U cn	5.0	0.20	ug/L			12/07/21 20:54	1
1,2-Dibromo-3-Chloropropane	0.30	U cn	5.0	0.30	ug/L			12/07/21 20:54	1
Isopropylbenzene	0.20	U cn	5.0	0.20	ug/L			12/07/21 20:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96	cn	80 - 120					12/07/21 20:54	1
4-Bromofluorobenzene (Surr)	97	cn	80 - 120					12/07/21 20:54	1
Dibromofluoromethane (Surr)	96	cn	80 - 120					12/07/21 20:54	1
Toluene-d8 (Surr)	100	cn	80 - 120					12/07/21 20:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
1,2,4,5-Tetrachlorobenzene	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
2,2'-oxybis[1-chloropropane]	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
2,3,4,6-Tetrachlorophenol	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 01:10	1
2,4,5-Trichlorophenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
2,4,6-Trichlorophenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
2,4-Dichlorophenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
2,4-Dimethylphenol	3.0	U cn	9.8	3.0	ug/L		12/06/21 09:16	12/09/21 01:10	1
2,4-Dinitrophenol	14	U cn	30	14	ug/L		12/06/21 09:16	12/09/21 01:10	1
2,4-Dinitrotoluene	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 01:10	1
2,6-Dinitrotoluene	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
2-Chloronaphthalene	0.39	U cn	0.98	0.39	ug/L		12/06/21 09:16	12/09/21 01:10	1
2-Chlorophenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
2-Methylnaphthalene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 01:10	1
2-Methylphenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
2-Nitroaniline	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 01:10	1
2-Nitrophenol	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 01:10	1
3,3'-Dichlorobenzidine	3.9	U cn	9.8	3.9	ug/L		12/06/21 09:16	12/09/21 01:10	1
3-Nitroaniline	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 01:10	1
4,6-Dinitro-2-methylphenol	7.9	U cn	21	7.9	ug/L		12/06/21 09:16	12/09/21 01:10	1
4-Bromophenyl-phenylether	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
4-Chloro-3-methylphenol	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 01:10	1
4-Methylphenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
4-Nitroaniline	0.89	U cn	3.0	0.89	ug/L		12/06/21 09:16	12/09/21 01:10	1
4-Nitrophenol	9.8	U cn	30	9.8	ug/L		12/06/21 09:16	12/09/21 01:10	1
Acenaphthene	0.18	J cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 01:10	1
Acenaphthylene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 01:10	1
Acetophenone	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 01:10	1
Anthracene	0.11	J cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 01:10	1
Atrazine	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 01:10	1
Benzaldehyde	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 01:10	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: PS-04P

Lab Sample ID: 410-65209-3

Date Collected: 12/01/21 12:15

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.18	J cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 01:10	1
Benzo[a]pyrene	0.20	J cn	0.49	0.11	ug/L		12/06/21 09:16	12/09/21 01:10	1
Benzo[b]fluoranthene	0.24	J cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 01:10	1
Benzo[g,h,i]perylene	0.14	J cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 01:10	1
Benzo[k]fluoranthene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 01:10	1
Bis(2-chloroethoxy)methane	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
Bis(2-chloroethyl)ether	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
Bis(2-ethylhexyl) phthalate	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 01:10	1
Butylbenzylphthalate	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 01:10	1
Caprolactam	3.0	U cn	6.9	3.0	ug/L		12/06/21 09:16	12/09/21 01:10	1
Carbazole	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
Chrysene	0.18	J *- cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 01:10	1
Di-n-butyl phthalate	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 01:10	1
Di-n-octyl phthalate	4.9	U cn	11	4.9	ug/L		12/06/21 09:16	12/09/21 01:10	1
Dibenz(a,h)anthracene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 01:10	1
Dibenzofuran	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
Diethyl phthalate	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 01:10	1
Dimethyl phthalate	2.0	U cn	4.9	2.0	ug/L		12/06/21 09:16	12/09/21 01:10	1
Fluoranthene	0.44	J cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 01:10	1
Fluorene	0.12	U cn	0.49	0.12	ug/L		12/06/21 09:16	12/09/21 01:10	1
Hexachlorobenzene	0.11	U cn	0.49	0.11	ug/L		12/06/21 09:16	12/09/21 01:10	1
Hexachlorobutadiene	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
Hexachlorocyclopentadiene	4.9	U cn	11	4.9	ug/L		12/06/21 09:16	12/09/21 01:10	1
Hexachloroethane	0.49	U cn	4.9	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
Indeno[1,2,3-cd]pyrene	0.14	J cn	0.49	0.11	ug/L		12/06/21 09:16	12/09/21 01:10	1
Isophorone	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
N-Nitrosodi-n-propylamine	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
N-Nitrosodiphenylamine	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
Naphthalene	0.098	U cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 01:10	1
Nitrobenzene	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
Phenanthrene	0.38	J cn	0.49	0.11	ug/L		12/06/21 09:16	12/09/21 01:10	1
Phenol	0.49	U cn	2.0	0.49	ug/L		12/06/21 09:16	12/09/21 01:10	1
Pyrene	0.41	J cn	0.49	0.098	ug/L		12/06/21 09:16	12/09/21 01:10	1
Pentachlorophenol	0.98	U cn	4.9	0.98	ug/L		12/06/21 09:16	12/09/21 01:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14 (Surr)	84	cn	31 - 119	12/06/21 09:16	12/09/21 01:10	1
Nitrobenzene-d5 (Surr)	85	cn	22 - 117	12/06/21 09:16	12/09/21 01:10	1
2-Fluorophenol (Surr)	45	cn	10 - 78	12/06/21 09:16	12/09/21 01:10	1
2-Fluorobiphenyl (Surr)	77	cn	35 - 100	12/06/21 09:16	12/09/21 01:10	1
2,4,6-Tribromophenol (Surr)	89	cn	10 - 150	12/06/21 09:16	12/09/21 01:10	1
Phenol-d5 (Surr)	44	cn	10 - 67	12/06/21 09:16	12/09/21 01:10	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	0.0098	U cn	0.098	0.0098	ug/L		12/03/21 08:38	12/03/21 17:17	5
alpha-BHC (1C)	0.015	U cn	0.098	0.015	ug/L		12/03/21 08:38	12/03/21 17:17	5
alpha-Chlordane (1C)	0.015	U cn	0.098	0.015	ug/L		12/03/21 08:38	12/03/21 17:17	5
beta-BHC (2C)	0.017	U cn	0.098	0.017	ug/L		12/03/21 08:38	12/03/21 17:17	5
delta-BHC (1C)	0.017	U cn	0.098	0.017	ug/L		12/03/21 08:38	12/03/21 17:17	5

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: PS-04P

Lab Sample ID: 410-65209-3

Date Collected: 12/01/21 12:15

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dieldrin (1C)	0.026	U cn	0.15	0.026	ug/L		12/03/21 08:38	12/03/21 17:17	5
Endosulfan I (1C)	0.021	U cn	0.098	0.021	ug/L		12/03/21 08:38	12/03/21 17:17	5
Endosulfan II (1C)	0.074	U cn	0.20	0.074	ug/L		12/03/21 08:38	12/03/21 17:17	5
Endosulfan sulfate (1C)	0.028	U cn	0.15	0.028	ug/L		12/03/21 08:38	12/03/21 17:17	5
Endrin (1C)	0.040	U cn	0.15	0.040	ug/L		12/03/21 08:38	12/03/21 17:17	5
Endrin aldehyde (1C)	0.098	U cn	0.49	0.098	ug/L		12/03/21 08:38	12/03/21 17:17	5
Endrin ketone (1C)	0.025	U cn	0.15	0.025	ug/L		12/03/21 08:38	12/03/21 17:17	5
gamma-BHC (Lindane) (1C)	0.0098	U cn	0.098	0.0098	ug/L		12/03/21 08:38	12/03/21 17:17	5
gamma-Chlordane (1C)	0.034	U cn	0.20	0.034	ug/L		12/03/21 08:38	12/03/21 17:17	5
Heptachlor (1C)	0.0098	U cn	0.098	0.0098	ug/L		12/03/21 08:38	12/03/21 17:17	5
Heptachlor epoxide (1C)	0.011	U cn	0.098	0.011	ug/L		12/03/21 08:38	12/03/21 17:17	5
Methoxychlor (1C)	0.15	U cn	0.54	0.15	ug/L		12/03/21 08:38	12/03/21 17:17	5
Toxaphene (1C)	1.5	U cn	4.9	1.5	ug/L		12/03/21 08:38	12/03/21 17:17	5
p,p'-DDD (1C)	0.025	U cn	0.15	0.025	ug/L		12/03/21 08:38	12/03/21 17:17	5
p,p'-DDE (1C)	0.025	U cn	0.15	0.025	ug/L		12/03/21 08:38	12/03/21 17:17	5
p,p'-DDT (1C)	0.026	U cn	0.15	0.026	ug/L		12/03/21 08:38	12/03/21 17:17	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	35	cn	20 - 149	12/03/21 08:38	12/03/21 17:17	5
DCB Decachlorobiphenyl (Surr) (2C)	31	cn	20 - 149	12/03/21 08:38	12/03/21 17:17	5
Tetrachloro-m-xylene (Surr) (1C)	77	cn	20 - 129	12/03/21 08:38	12/03/21 17:17	5
Tetrachloro-m-xylene (Surr) (2C)	69	cn	20 - 129	12/03/21 08:38	12/03/21 17:17	5

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.050	0.016	mg/L		12/02/21 20:15	12/03/21 21:56	1
Aluminum	13		0.30	0.15	mg/L		12/02/21 20:15	12/03/21 21:56	1
Arsenic	0.016	U	0.050	0.016	mg/L		12/02/21 20:15	12/07/21 12:54	1
Barium	0.29		0.0050	0.0010	mg/L		12/02/21 20:15	12/03/21 21:56	1
Beryllium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:15	12/03/21 21:56	1
Cadmium	0.0011	J	0.0050	0.0010	mg/L		12/02/21 20:15	12/03/21 21:56	1
Calcium	100		0.50	0.096	mg/L		12/02/21 20:15	12/03/21 21:56	1
Chromium	0.027		0.015	0.0016	mg/L		12/02/21 20:15	12/03/21 21:56	1
Cobalt	0.0096		0.0050	0.0015	mg/L		12/02/21 20:15	12/03/21 21:56	1
Copper	0.077		0.020	0.012	mg/L		12/02/21 20:15	12/03/21 21:56	1
Iron	41		0.20	0.040	mg/L		12/02/21 20:15	12/03/21 21:56	1
Lead	0.12		0.015	0.0071	mg/L		12/02/21 20:15	12/03/21 21:56	1
Magnesium	15		0.10	0.040	mg/L		12/02/21 20:15	12/03/21 21:56	1
Manganese	1.1		0.010	0.0030	mg/L		12/02/21 20:15	12/03/21 21:56	1
Nickel	0.034		0.010	0.0021	mg/L		12/02/21 20:15	12/03/21 21:56	1
Potassium	17		0.50	0.20	mg/L		12/02/21 20:15	12/07/21 12:54	1
Selenium	0.016	U	0.050	0.016	mg/L		12/02/21 20:15	12/03/21 21:56	1
Silver	0.0050	U ^5-	0.010	0.0050	mg/L		12/02/21 20:15	12/03/21 21:56	1
Sodium	31		1.0	0.24	mg/L		12/02/21 20:15	12/03/21 21:56	1
Thallium	0.0081	U ^5+ ^3+	0.030	0.0081	mg/L		12/02/21 20:15	12/03/21 21:56	1
Zinc	0.16		0.020	0.0037	mg/L		12/02/21 20:15	12/03/21 21:56	1
Vanadium	0.033		0.010	0.0019	mg/L		12/02/21 20:15	12/03/21 21:56	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: PS-04P

Lab Sample ID: 410-65209-3

Date Collected: 12/01/21 12:15

Matrix: Water

Date Received: 12/01/21 17:26

Method: 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 11:46	1
Aluminum	0.16	U	0.31	0.16	mg/L		12/03/21 10:47	12/06/21 11:46	1
Arsenic	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 11:46	1
Barium	0.16		0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 11:46	1
Beryllium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 11:46	1
Cadmium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 11:46	1
Calcium	96		0.52	0.099	mg/L		12/03/21 10:47	12/06/21 11:46	1
Chromium	0.0040	J	0.015	0.0016	mg/L		12/03/21 10:47	12/06/21 11:46	1
Cobalt	0.0015	U	0.0052	0.0015	mg/L		12/03/21 10:47	12/06/21 11:46	1
Copper	0.012	U	0.021	0.012	mg/L		12/03/21 10:47	12/06/21 11:46	1
Iron	4.1		0.21	0.041	mg/L		12/03/21 10:47	12/06/21 11:46	1
Lead	0.0073	U ^3+	0.015	0.0073	mg/L		12/03/21 10:47	12/06/21 11:46	1
Magnesium	13	^5-	0.10	0.041	mg/L		12/03/21 10:47	12/06/21 11:46	1
Manganese	0.77		0.010	0.0031	mg/L		12/03/21 10:47	12/06/21 11:46	1
Nickel	0.0023	J	0.010	0.0022	mg/L		12/03/21 10:47	12/06/21 11:46	1
Potassium	16		0.52	0.21	mg/L		12/03/21 10:47	12/07/21 10:33	1
Selenium	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 11:46	1
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/03/21 10:47	12/06/21 11:46	1
Sodium	32		1.0	0.25	mg/L		12/03/21 10:47	12/06/21 11:46	1
Thallium	0.0083	U	0.031	0.0083	mg/L		12/03/21 10:47	12/06/21 11:46	1
Zinc	0.0056	J	0.021	0.0038	mg/L		12/03/21 10:47	12/06/21 11:46	1
Vanadium	0.0034	J	0.010	0.0020	mg/L		12/03/21 10:47	12/06/21 11:46	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	J	0.20	0.079	ug/L		12/02/21 21:44	12/03/21 13:27	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/03/21 07:59	12/03/21 14:34	1

Client Sample ID: PS-04AP

Lab Sample ID: 410-65209-4

Date Collected: 12/01/21 13:35

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/07/21 21:16	1
trans-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/07/21 21:16	1
Ethylbenzene	0.40	U cn	1.0	0.40	ug/L			12/07/21 21:16	1
Styrene	0.30	U cn	5.0	0.30	ug/L			12/07/21 21:16	1
1,4-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/07/21 21:16	1
1,2-Dibromoethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 21:16	1
1,2-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
4-Methyl-2-pentanone	0.50	U cn	10	0.50	ug/L			12/07/21 21:16	1
Methylcyclohexane	0.50	U cn	5.0	0.50	ug/L			12/07/21 21:16	1
Toluene	0.20	U cn	1.0	0.20	ug/L			12/07/21 21:16	1
Chlorobenzene	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
Cyclohexane	1.0	U cn	5.0	1.0	ug/L			12/07/21 21:16	1
1,2,4-Trichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/07/21 21:16	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: PS-04AP

Lab Sample ID: 410-65209-4

Date Collected: 12/01/21 13:35

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	29	U cn	250	29	ug/L			12/07/21 21:16	1
Dibromochloromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 21:16	1
Tetrachloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
cis-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
trans-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
Methyl tertiary butyl ether	0.20	U cn	1.0	0.20	ug/L			12/07/21 21:16	1
m&p-Xylene	2.0	U cn	5.0	2.0	ug/L			12/07/21 21:16	1
1,3-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/07/21 21:16	1
Carbon tetrachloride	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
2-Hexanone	0.40	U cn	10	0.40	ug/L			12/07/21 21:16	1
Acetone	0.70	U cn	20	0.70	ug/L			12/07/21 21:16	1
Chloroform	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
Benzene	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
1,1,1-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
Bromomethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
Chloromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 21:16	1
Bromochloromethane	0.20	U cn	5.0	0.20	ug/L			12/07/21 21:16	1
Chloroethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 21:16	1
Vinyl chloride	0.20	U cn	1.0	0.20	ug/L			12/07/21 21:16	1
Methylene Chloride	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
Carbon disulfide	0.30	U cn	5.0	0.30	ug/L			12/07/21 21:16	1
Bromoform	1.0	U cn	4.0	1.0	ug/L			12/07/21 21:16	1
Bromodichloromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 21:16	1
1,1-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
1,1-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
Trichlorofluoromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 21:16	1
Dichlorodifluoromethane	0.20	U cn	1.0	0.20	ug/L			12/07/21 21:16	1
Freon 113	0.30	U cn	10	0.30	ug/L			12/07/21 21:16	1
1,2-Dichloropropane	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
2-Butanone	0.50	U cn	10	0.50	ug/L			12/07/21 21:16	1
1,1,2-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
Trichloroethene	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
Methyl acetate	0.30	U cn	5.0	0.30	ug/L			12/07/21 21:16	1
1,1,2,2-Tetrachloroethane	0.30	U cn	1.0	0.30	ug/L			12/07/21 21:16	1
1,2,3-Trichlorobenzene	0.40	U cn	5.0	0.40	ug/L			12/07/21 21:16	1
o-Xylene	0.40	U cn	1.0	0.40	ug/L			12/07/21 21:16	1
1,2-Dichlorobenzene	0.20	U cn	5.0	0.20	ug/L			12/07/21 21:16	1
1,2-Dibromo-3-Chloropropane	0.30	U cn	5.0	0.30	ug/L			12/07/21 21:16	1
Isopropylbenzene	0.20	U cn	5.0	0.20	ug/L			12/07/21 21:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100	cn	80 - 120		12/07/21 21:16	1
4-Bromofluorobenzene (Surr)	96	cn	80 - 120		12/07/21 21:16	1
Dibromofluoromethane (Surr)	96	cn	80 - 120		12/07/21 21:16	1
Toluene-d8 (Surr)	100	cn	80 - 120		12/07/21 21:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
1,2,4,5-Tetrachlorobenzene	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: PS-04AP

Lab Sample ID: 410-65209-4

Date Collected: 12/01/21 13:35

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2'-oxybis[1-chloropropane]	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
2,3,4,6-Tetrachlorophenol	0.97	U cn	4.8	0.97	ug/L		12/06/21 09:16	12/09/21 01:39	1
2,4,5-Trichlorophenol	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
2,4,6-Trichlorophenol	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
2,4-Dichlorophenol	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
2,4-Dimethylphenol	2.9	U cn	9.7	2.9	ug/L		12/06/21 09:16	12/09/21 01:39	1
2,4-Dinitrophenol	14	U cn	29	14	ug/L		12/06/21 09:16	12/09/21 01:39	1
2,4-Dinitrotoluene	0.97	U cn	4.8	0.97	ug/L		12/06/21 09:16	12/09/21 01:39	1
2,6-Dinitrotoluene	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
2-Chloronaphthalene	0.39	U cn	0.97	0.39	ug/L		12/06/21 09:16	12/09/21 01:39	1
2-Chlorophenol	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
2-Methylnaphthalene	0.097	U cn	0.48	0.097	ug/L		12/06/21 09:16	12/09/21 01:39	1
2-Methylphenol	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
2-Nitroaniline	0.97	U cn	4.8	0.97	ug/L		12/06/21 09:16	12/09/21 01:39	1
2-Nitrophenol	0.97	U cn	4.8	0.97	ug/L		12/06/21 09:16	12/09/21 01:39	1
3,3'-Dichlorobenzidine	3.9	U cn	9.7	3.9	ug/L		12/06/21 09:16	12/09/21 01:39	1
3-Nitroaniline	1.9	U cn	4.8	1.9	ug/L		12/06/21 09:16	12/09/21 01:39	1
4,6-Dinitro-2-methylphenol	7.8	U cn	20	7.8	ug/L		12/06/21 09:16	12/09/21 01:39	1
4-Bromophenyl-phenylether	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
4-Chloro-3-methylphenol	0.97	U cn	4.8	0.97	ug/L		12/06/21 09:16	12/09/21 01:39	1
4-Methylphenol	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
4-Nitroaniline	0.87	U cn	2.9	0.87	ug/L		12/06/21 09:16	12/09/21 01:39	1
4-Nitrophenol	9.7	U cn	29	9.7	ug/L		12/06/21 09:16	12/09/21 01:39	1
Acenaphthene	0.097	U cn	0.48	0.097	ug/L		12/06/21 09:16	12/09/21 01:39	1
Acenaphthylene	0.097	U cn	0.48	0.097	ug/L		12/06/21 09:16	12/09/21 01:39	1
Acetophenone	0.97	U cn	4.8	0.97	ug/L		12/06/21 09:16	12/09/21 01:39	1
Anthracene	0.097	U cn	0.48	0.097	ug/L		12/06/21 09:16	12/09/21 01:39	1
Atrazine	0.97	U cn	4.8	0.97	ug/L		12/06/21 09:16	12/09/21 01:39	1
Benzaldehyde	0.97	U cn	4.8	0.97	ug/L		12/06/21 09:16	12/09/21 01:39	1
Benzo[a]anthracene	0.15	J cn	0.48	0.097	ug/L		12/06/21 09:16	12/09/21 01:39	1
Benzo[a]pyrene	0.11	U cn	0.48	0.11	ug/L		12/06/21 09:16	12/09/21 01:39	1
Benzo[b]fluoranthene	0.11	J cn	0.48	0.097	ug/L		12/06/21 09:16	12/09/21 01:39	1
Benzo[g,h,i]perylene	0.097	U cn	0.48	0.097	ug/L		12/06/21 09:16	12/09/21 01:39	1
Benzo[k]fluoranthene	0.097	U cn	0.48	0.097	ug/L		12/06/21 09:16	12/09/21 01:39	1
Bis(2-chloroethoxy)methane	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
Bis(2-chloroethyl)ether	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
Bis(2-ethylhexyl) phthalate	1.9	U cn	4.8	1.9	ug/L		12/06/21 09:16	12/09/21 01:39	1
Butylbenzylphthalate	1.9	U cn	4.8	1.9	ug/L		12/06/21 09:16	12/09/21 01:39	1
Caprolactam	2.9	U cn	6.8	2.9	ug/L		12/06/21 09:16	12/09/21 01:39	1
Carbazole	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
Chrysene	0.097	U *- cn	0.48	0.097	ug/L		12/06/21 09:16	12/09/21 01:39	1
Di-n-butyl phthalate	1.9	U cn	4.8	1.9	ug/L		12/06/21 09:16	12/09/21 01:39	1
Di-n-octyl phthalate	4.8	U cn	11	4.8	ug/L		12/06/21 09:16	12/09/21 01:39	1
Dibenz(a,h)anthracene	0.097	U cn	0.48	0.097	ug/L		12/06/21 09:16	12/09/21 01:39	1
Dibenzofuran	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
Diethyl phthalate	1.9	U cn	4.8	1.9	ug/L		12/06/21 09:16	12/09/21 01:39	1
Dimethyl phthalate	1.9	U cn	4.8	1.9	ug/L		12/06/21 09:16	12/09/21 01:39	1
Fluoranthene	0.26	J cn	0.48	0.097	ug/L		12/06/21 09:16	12/09/21 01:39	1
Fluorene	0.12	U cn	0.48	0.12	ug/L		12/06/21 09:16	12/09/21 01:39	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: PS-04AP

Lab Sample ID: 410-65209-4

Date Collected: 12/01/21 13:35

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	0.11	U cn	0.48	0.11	ug/L		12/06/21 09:16	12/09/21 01:39	1
Hexachlorobutadiene	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
Hexachlorocyclopentadiene	4.8	U cn	11	4.8	ug/L		12/06/21 09:16	12/09/21 01:39	1
Hexachloroethane	0.48	U cn	4.8	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
Indeno[1,2,3-cd]pyrene	0.11	U cn	0.48	0.11	ug/L		12/06/21 09:16	12/09/21 01:39	1
Isophorone	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
N-Nitrosodi-n-propylamine	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
N-Nitrosodiphenylamine	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
Naphthalene	0.097	U cn	0.48	0.097	ug/L		12/06/21 09:16	12/09/21 01:39	1
Nitrobenzene	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
Phenanthrene	0.14	J cn	0.48	0.11	ug/L		12/06/21 09:16	12/09/21 01:39	1
Phenol	0.48	U cn	1.9	0.48	ug/L		12/06/21 09:16	12/09/21 01:39	1
Pyrene	0.90	cn	0.48	0.097	ug/L		12/06/21 09:16	12/09/21 01:39	1
Pentachlorophenol	0.97	U cn	4.8	0.97	ug/L		12/06/21 09:16	12/09/21 01:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	76	cn	31 - 119	12/06/21 09:16	12/09/21 01:39	1
Nitrobenzene-d5 (Surr)	86	cn	22 - 117	12/06/21 09:16	12/09/21 01:39	1
2-Fluorophenol (Surr)	51	cn	10 - 78	12/06/21 09:16	12/09/21 01:39	1
2-Fluorobiphenyl (Surr)	76	cn	35 - 100	12/06/21 09:16	12/09/21 01:39	1
2,4,6-Tribromophenol (Surr)	97	cn	10 - 150	12/06/21 09:16	12/09/21 01:39	1
Phenol-d5 (Surr)	48	cn	10 - 67	12/06/21 09:16	12/09/21 01:39	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	0.019	U cn	0.19	0.019	ug/L		12/03/21 08:38	12/03/21 17:27	10
alpha-BHC (1C)	0.029	U cn	0.19	0.029	ug/L		12/03/21 08:38	12/03/21 17:27	10
alpha-Chlordane (1C)	0.029	U cn	0.19	0.029	ug/L		12/03/21 08:38	12/03/21 17:27	10
beta-BHC (1C)	0.032	U cn	0.19	0.032	ug/L		12/03/21 08:38	12/03/21 17:27	10
delta-BHC (1C)	0.032	U cn	0.19	0.032	ug/L		12/03/21 08:38	12/03/21 17:27	10
Dieldrin (1C)	0.050	U cn	0.29	0.050	ug/L		12/03/21 08:38	12/03/21 17:27	10
Endosulfan I (1C)	0.041	U cn	0.19	0.041	ug/L		12/03/21 08:38	12/03/21 17:27	10
Endosulfan II (1C)	0.14	U cn	0.38	0.14	ug/L		12/03/21 08:38	12/03/21 17:27	10
Endosulfan sulfate (1C)	0.055	U cn	0.29	0.055	ug/L		12/03/21 08:38	12/03/21 17:27	10
Endrin (1C)	0.077	U cn	0.29	0.077	ug/L		12/03/21 08:38	12/03/21 17:27	10
Endrin aldehyde (1C)	0.19	U cn	0.95	0.19	ug/L		12/03/21 08:38	12/03/21 17:27	10
Endrin ketone (1C)	0.048	U cn	0.29	0.048	ug/L		12/03/21 08:38	12/03/21 17:27	10
gamma-BHC (Lindane) (1C)	0.019	U cn	0.19	0.019	ug/L		12/03/21 08:38	12/03/21 17:27	10
gamma-Chlordane (1C)	0.067	U cn	0.38	0.067	ug/L		12/03/21 08:38	12/03/21 17:27	10
Heptachlor (1C)	0.019	U cn	0.19	0.019	ug/L		12/03/21 08:38	12/03/21 17:27	10
Heptachlor epoxide (1C)	0.022	U cn	0.19	0.022	ug/L		12/03/21 08:38	12/03/21 17:27	10
Methoxychlor (1C)	0.29	U cn	1.0	0.29	ug/L		12/03/21 08:38	12/03/21 17:27	10
Toxaphene (1C)	2.9	U cn	9.5	2.9	ug/L		12/03/21 08:38	12/03/21 17:27	10
p,p'-DDD (1C)	0.048	U cn	0.29	0.048	ug/L		12/03/21 08:38	12/03/21 17:27	10
p,p'-DDE (1C)	0.048	U cn	0.29	0.048	ug/L		12/03/21 08:38	12/03/21 17:27	10
p,p'-DDT (1C)	0.049	U cn	0.29	0.049	ug/L		12/03/21 08:38	12/03/21 17:27	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	59	cn	20 - 149	12/03/21 08:38	12/03/21 17:27	10
DCB Decachlorobiphenyl (Surr) (2C)	55	cn	20 - 149	12/03/21 08:38	12/03/21 17:27	10

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: PS-04AP

Lab Sample ID: 410-65209-4

Date Collected: 12/01/21 13:35

Matrix: Water

Date Received: 12/01/21 17:26

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr) (1C)	107	cn	20 - 129	12/03/21 08:38	12/03/21 17:27	10
Tetrachloro-m-xylene (Surr) (2C)	93	cn	20 - 129	12/03/21 08:38	12/03/21 17:27	10

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.050	0.016	mg/L		12/02/21 20:15	12/03/21 21:53	1
Aluminum	0.85		0.30	0.15	mg/L		12/02/21 20:15	12/03/21 21:53	1
Arsenic	0.016	U	0.050	0.016	mg/L		12/02/21 20:15	12/07/21 12:51	1
Barium	0.066		0.0050	0.0010	mg/L		12/02/21 20:15	12/03/21 21:53	1
Beryllium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:15	12/03/21 21:53	1
Cadmium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:15	12/03/21 21:53	1
Calcium	280		0.50	0.096	mg/L		12/02/21 20:15	12/03/21 21:53	1
Chromium	0.0017	J	0.015	0.0016	mg/L		12/02/21 20:15	12/03/21 21:53	1
Cobalt	0.0023	J	0.0050	0.0015	mg/L		12/02/21 20:15	12/03/21 21:53	1
Copper	0.013	J	0.020	0.012	mg/L		12/02/21 20:15	12/03/21 21:53	1
Iron	4.6		0.20	0.040	mg/L		12/02/21 20:15	12/03/21 21:53	1
Lead	0.020		0.015	0.0071	mg/L		12/02/21 20:15	12/03/21 21:53	1
Magnesium	24		0.10	0.040	mg/L		12/02/21 20:15	12/03/21 21:53	1
Manganese	1.4		0.010	0.0030	mg/L		12/02/21 20:15	12/03/21 21:53	1
Nickel	0.0021	U	0.010	0.0021	mg/L		12/02/21 20:15	12/03/21 21:53	1
Potassium	67		0.50	0.20	mg/L		12/02/21 20:15	12/07/21 12:51	1
Selenium	0.016	U	0.050	0.016	mg/L		12/02/21 20:15	12/03/21 21:53	1
Silver	0.0050	U ^5-	0.010	0.0050	mg/L		12/02/21 20:15	12/03/21 21:53	1
Sodium	64		1.0	0.24	mg/L		12/02/21 20:15	12/03/21 21:53	1
Thallium	0.0081	U	0.030	0.0081	mg/L		12/02/21 20:15	12/07/21 12:51	1
Zinc	0.11		0.020	0.0037	mg/L		12/02/21 20:15	12/03/21 21:53	1
Vanadium	0.0019	J	0.010	0.0019	mg/L		12/02/21 20:15	12/03/21 21:53	1

Method: 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 11:49	1
Aluminum	0.16	U	0.31	0.16	mg/L		12/03/21 10:47	12/06/21 11:49	1
Arsenic	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 11:49	1
Barium	0.036		0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 11:49	1
Beryllium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 11:49	1
Cadmium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 11:49	1
Calcium	270		0.52	0.099	mg/L		12/03/21 10:47	12/06/21 11:49	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/03/21 10:47	12/06/21 11:49	1
Cobalt	0.0015	U	0.0052	0.0015	mg/L		12/03/21 10:47	12/06/21 11:49	1
Copper	0.012	U	0.021	0.012	mg/L		12/03/21 10:47	12/06/21 11:49	1
Iron	0.041	U	0.21	0.041	mg/L		12/03/21 10:47	12/06/21 11:49	1
Lead	0.0073	U ^3+	0.015	0.0073	mg/L		12/03/21 10:47	12/06/21 11:49	1
Magnesium	23	^5-	0.10	0.041	mg/L		12/03/21 10:47	12/06/21 11:49	1
Manganese	1.3		0.010	0.0031	mg/L		12/03/21 10:47	12/06/21 11:49	1
Nickel	0.0022	U	0.010	0.0022	mg/L		12/03/21 10:47	12/06/21 11:49	1
Potassium	66		0.52	0.21	mg/L		12/03/21 10:47	12/07/21 10:37	1
Selenium	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 11:49	1
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/03/21 10:47	12/06/21 11:49	1
Sodium	64		1.0	0.25	mg/L		12/03/21 10:47	12/06/21 11:49	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: PS-04AP

Lab Sample ID: 410-65209-4

Date Collected: 12/01/21 13:35

Matrix: Water

Date Received: 12/01/21 17:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	0.0083	U	0.031	0.0083	mg/L		12/03/21 10:47	12/06/21 11:49	1
Zinc	0.0077	J	0.021	0.0038	mg/L		12/03/21 10:47	12/06/21 11:49	1
Vanadium	0.0020	U	0.010	0.0020	mg/L		12/03/21 10:47	12/06/21 11:49	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/02/21 21:44	12/03/21 13:25	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/03/21 07:59	12/03/21 14:36	1

DRAFT

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-65209-1	GI-15P	97 cn	95 cn	96 cn	100 cn
410-65209-2	GI-13P	97 cn	97 cn	96 cn	100 cn
410-65209-3	PS-04P	96 cn	97 cn	96 cn	100 cn
410-65209-4	PS-04AP	100 cn	96 cn	96 cn	100 cn
LCS 410-202219/5	Lab Control Sample	97	101	95	101
MB 410-202219/9	Method Blank	97	97	95	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (31-119)	NBZ (22-117)	2FP (10-78)	FBP (35-100)	TBP (10-150)	PHL (10-67)
410-65209-1	GI-15P	74 cn	74 cn	2 S1- cn	65 cn	8 S1- cn	5 S1- cn
410-65209-2	GI-13P	83 cn	82 cn	51 cn	70 cn	91 cn	49 cn
410-65209-3	PS-04P	84 cn	85 cn	45 cn	77 cn	89 cn	44 cn
410-65209-4	PS-04AP	76 cn	86 cn	51 cn	76 cn	97 cn	48 cn
LCS 410-201710/2-A	Lab Control Sample	79	77	51	70	83	40
LCS 410-201710/3-A	Lab Control Sample Dup	86	80	52	71	81	41
MB 410-201710/1-A	Method Blank	84	74	43	63	78	34

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (20-149)	DCB2 (20-149)	TCX1 (20-129)	TCX2 (20-129)
410-65209-1	GI-15P	27 cn	26 cn	83 cn	84 cn
410-65209-2	GI-13P	50 cn	51 cn	80 cn	79 cn
410-65209-3	PS-04P	35 cn	31 cn	77 cn	69 cn
410-65209-4	PS-04AP	59 cn	55 cn	107 cn	93 cn
LCS 410-201063/2-A	Lab Control Sample	76	79	93	96
LCS 410-201063/3-A	Lab Control Sample Dup	93	102	87	87
MB 410-201063/1-A	Method Blank	85	97	93	94

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

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

Lab Sample ID: MB 410-202219/9

Matrix: Water

Analysis Batch: 202219

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			12/07/21 13:33	1
trans-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			12/07/21 13:33	1
Ethylbenzene	0.40	U	1.0	0.40	ug/L			12/07/21 13:33	1
Styrene	0.30	U	5.0	0.30	ug/L			12/07/21 13:33	1
1,4-Dichlorobenzene	0.30	U	5.0	0.30	ug/L			12/07/21 13:33	1
1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L			12/07/21 13:33	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
4-Methyl-2-pentanone	0.50	U	10	0.50	ug/L			12/07/21 13:33	1
Methylcyclohexane	0.50	U	5.0	0.50	ug/L			12/07/21 13:33	1
Toluene	0.20	U	1.0	0.20	ug/L			12/07/21 13:33	1
Chlorobenzene	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
Cyclohexane	1.0	U	5.0	1.0	ug/L			12/07/21 13:33	1
1,2,4-Trichlorobenzene	0.30	U	5.0	0.30	ug/L			12/07/21 13:33	1
1,4-Dioxane	29	U	250	29	ug/L			12/07/21 13:33	1
Dibromochloromethane	0.20	U	1.0	0.20	ug/L			12/07/21 13:33	1
Tetrachloroethene	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
cis-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
trans-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
Methyl tertiary butyl ether	0.20	U	1.0	0.20	ug/L			12/07/21 13:33	1
m&p-Xylene	2.0	U	5.0	2.0	ug/L			12/07/21 13:33	1
1,3-Dichlorobenzene	0.30	U	5.0	0.30	ug/L			12/07/21 13:33	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
2-Hexanone	0.40	U	10	0.40	ug/L			12/07/21 13:33	1
Acetone	0.70	U	20	0.70	ug/L			12/07/21 13:33	1
Chloroform	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
Benzene	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
1,1,1-Trichloroethane	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
Bromomethane	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
Chloromethane	0.20	U	1.0	0.20	ug/L			12/07/21 13:33	1
Bromochloromethane	0.20	U	5.0	0.20	ug/L			12/07/21 13:33	1
Chloroethane	0.20	U	1.0	0.20	ug/L			12/07/21 13:33	1
Vinyl chloride	0.20	U	1.0	0.20	ug/L			12/07/21 13:33	1
Methylene Chloride	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
Carbon disulfide	0.30	U	5.0	0.30	ug/L			12/07/21 13:33	1
Bromoform	1.0	U	4.0	1.0	ug/L			12/07/21 13:33	1
Bromodichloromethane	0.20	U	1.0	0.20	ug/L			12/07/21 13:33	1
1,1-Dichloroethane	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
1,1-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
Trichlorofluoromethane	0.20	U	1.0	0.20	ug/L			12/07/21 13:33	1
Dichlorodifluoromethane	0.20	U	1.0	0.20	ug/L			12/07/21 13:33	1
Freon 113	0.30	U	10	0.30	ug/L			12/07/21 13:33	1
1,2-Dichloropropane	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
2-Butanone	0.50	U	10	0.50	ug/L			12/07/21 13:33	1
1,1,2-Trichloroethane	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
Trichloroethene	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
Methyl acetate	0.30	U	5.0	0.30	ug/L			12/07/21 13:33	1
1,1,2,2-Tetrachloroethane	0.30	U	1.0	0.30	ug/L			12/07/21 13:33	1
1,2,3-Trichlorobenzene	0.40	U	5.0	0.40	ug/L			12/07/21 13:33	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

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

Lab Sample ID: MB 410-202219/9

Matrix: Water

Analysis Batch: 202219

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	0.40	U	1.0	0.40	ug/L			12/07/21 13:33	1
1,2-Dichlorobenzene	0.20	U	5.0	0.20	ug/L			12/07/21 13:33	1
1,2-Dibromo-3-Chloropropane	0.30	U	5.0	0.30	ug/L			12/07/21 13:33	1
Isopropylbenzene	0.20	U	5.0	0.20	ug/L			12/07/21 13:33	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	97		80 - 120		12/07/21 13:33	1
4-Bromofluorobenzene (Surr)	97		80 - 120		12/07/21 13:33	1
Dibromofluoromethane (Surr)	95		80 - 120		12/07/21 13:33	1
Toluene-d8 (Surr)	101		80 - 120		12/07/21 13:33	1

Lab Sample ID: LCS 410-202219/5

Matrix: Water

Analysis Batch: 202219

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,3-Dichloropropene	20.0	19.5		ug/L		98	75 - 120
trans-1,3-Dichloropropene	20.0	19.9		ug/L		100	67 - 120
Ethylbenzene	20.0	19.5		ug/L		98	80 - 120
Styrene	20.0	18.9		ug/L		94	80 - 120
1,4-Dichlorobenzene	20.0	19.3		ug/L		97	80 - 120
1,2-Dibromoethane	20.0	19.8		ug/L		99	77 - 120
1,2-Dichloroethane	20.0	17.7		ug/L		88	73 - 124
4-Methyl-2-pentanone	250	259		ug/L		104	62 - 133
Methylcyclohexane	20.0	16.5		ug/L		83	67 - 121
Toluene	20.0	19.7		ug/L		98	80 - 120
Chlorobenzene	20.0	19.1		ug/L		96	80 - 120
Cyclohexane	20.0	17.7		ug/L		88	68 - 126
1,2,4-Trichlorobenzene	20.0	13.8		ug/L		69	63 - 120
1,4-Dioxane	500	591		ug/L		118	63 - 146
Dibromochloromethane	20.0	18.5		ug/L		92	71 - 120
Tetrachloroethene	20.0	17.9		ug/L		89	80 - 120
cis-1,2-Dichloroethene	20.0	19.8		ug/L		99	80 - 125
trans-1,2-Dichloroethene	20.0	18.6		ug/L		93	80 - 126
Methyl tertiary butyl ether	20.0	16.9		ug/L		84	69 - 122
m&p-Xylene	40.0	38.0		ug/L		95	80 - 120
1,3-Dichlorobenzene	20.0	18.9		ug/L		95	80 - 120
Carbon tetrachloride	20.0	16.1		ug/L		80	64 - 134
2-Hexanone	250	280		ug/L		112	56 - 135
Acetone	250	268		ug/L		107	54 - 157
Chloroform	20.0	18.6		ug/L		93	80 - 120
Benzene	20.0	20.3		ug/L		102	80 - 120
1,1,1-Trichloroethane	20.0	16.3		ug/L		82	67 - 126
Bromomethane	20.0	15.6		ug/L		78	53 - 128
Chloromethane	20.0	17.1		ug/L		85	56 - 121
Bromochloromethane	20.0	18.1		ug/L		90	80 - 120
Chloroethane	20.0	17.1		ug/L		86	55 - 123
Vinyl chloride	20.0	16.2		ug/L		81	56 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

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

Lab Sample ID: LCS 410-202219/5

Matrix: Water

Analysis Batch: 202219

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	17.4		ug/L		87	80 - 120
Carbon disulfide	20.0	16.2		ug/L		81	65 - 128
Bromoform	20.0	17.9		ug/L		89	51 - 120
Bromodichloromethane	20.0	19.1		ug/L		95	71 - 120
1,1-Dichloroethane	20.0	19.1		ug/L		96	80 - 120
1,1-Dichloroethene	20.0	17.6		ug/L		88	80 - 131
Trichlorofluoromethane	20.0	15.5		ug/L		77	55 - 135
Dichlorodifluoromethane	20.0	15.8		ug/L		79	41 - 127
Freon 113	20.0	15.4		ug/L		77	73 - 139
1,2-Dichloropropane	20.0	20.5		ug/L		103	80 - 120
2-Butanone	250	273		ug/L		109	59 - 135
1,1,2-Trichloroethane	20.0	20.0		ug/L		100	80 - 120
Trichloroethene	20.0	19.2		ug/L		96	80 - 120
Methyl acetate	20.0	19.8		ug/L		99	54 - 136
1,1,1,2-Tetrachloroethane	20.0	21.4		ug/L		107	72 - 120
1,2,3-Trichlorobenzene	20.0	13.5		ug/L		67	66 - 120
o-Xylene	20.0	17.7		ug/L		89	80 - 120
1,2-Dichlorobenzene	20.0	18.1		ug/L		91	80 - 120
1,2-Dibromo-3-Chloropropane	20.0	16.9		ug/L		85	47 - 131
Isopropylbenzene	20.0	17.8		ug/L		89	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	95		80 - 120
Toluene-d8 (Surr)	101		80 - 120

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

Lab Sample ID: MB 410-201710/1-A

Matrix: Water

Analysis Batch: 202078

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201710

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
1,2,4,5-Tetrachlorobenzene	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
2,2'-oxybis[1-chloropropane]	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
2,3,4,6-Tetrachlorophenol	1.0	U	5.0	1.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
2,4,5-Trichlorophenol	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
2,4,6-Trichlorophenol	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
2,4-Dichlorophenol	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
2,4-Dimethylphenol	3.0	U	10	3.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
2,4-Dinitrophenol	14	U	30	14	ug/L		12/06/21 09:16	12/06/21 21:43	1
2,4-Dinitrotoluene	1.0	U	5.0	1.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
2,6-Dinitrotoluene	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
2-Chloronaphthalene	0.40	U	1.0	0.40	ug/L		12/06/21 09:16	12/06/21 21:43	1
2-Chlorophenol	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
2-Methylnaphthalene	0.10	U	0.50	0.10	ug/L		12/06/21 09:16	12/06/21 21:43	1
2-Methylphenol	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

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

Lab Sample ID: MB 410-201710/1-A

Matrix: Water

Analysis Batch: 202078

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201710

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2-Nitroaniline	1.0	U	5.0	1.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
2-Nitrophenol	1.0	U	5.0	1.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
3,3'-Dichlorobenzidine	4.0	U	10	4.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
3-Nitroaniline	2.0	U	5.0	2.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
4,6-Dinitro-2-methylphenol	8.0	U	21	8.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
4-Bromophenyl-phenylether	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
4-Chloro-3-methylphenol	1.0	U	5.0	1.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
4-Methylphenol	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
4-Nitroaniline	0.90	U	3.0	0.90	ug/L		12/06/21 09:16	12/06/21 21:43	1
4-Nitrophenol	10	U	30	10	ug/L		12/06/21 09:16	12/06/21 21:43	1
Acenaphthene	0.10	U	0.50	0.10	ug/L		12/06/21 09:16	12/06/21 21:43	1
Acenaphthylene	0.10	U	0.50	0.10	ug/L		12/06/21 09:16	12/06/21 21:43	1
Acetophenone	1.0	U	5.0	1.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
Anthracene	0.10	U	0.50	0.10	ug/L		12/06/21 09:16	12/06/21 21:43	1
Atrazine	1.0	U	5.0	1.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
Benzaldehyde	1.0	U	5.0	1.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
Benzo[a]anthracene	0.10	U	0.50	0.10	ug/L		12/06/21 09:16	12/06/21 21:43	1
Benzo[a]pyrene	0.11	U	0.50	0.11	ug/L		12/06/21 09:16	12/06/21 21:43	1
Benzo[b]fluoranthene	0.10	U	0.50	0.10	ug/L		12/06/21 09:16	12/06/21 21:43	1
Benzo[g,h,i]perylene	0.10	U	0.50	0.10	ug/L		12/06/21 09:16	12/06/21 21:43	1
Benzo[k]fluoranthene	0.10	U	0.50	0.10	ug/L		12/06/21 09:16	12/06/21 21:43	1
Bis(2-chloroethoxy)methane	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
Bis(2-chloroethyl)ether	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
Bis(2-ethylhexyl) phthalate	2.0	U	5.0	2.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
Butylbenzylphthalate	2.0	U	5.0	2.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
Caprolactam	3.0	U	7.0	3.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
Carbazole	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
Chrysene	0.10	U	0.50	0.10	ug/L		12/06/21 09:16	12/06/21 21:43	1
Di-n-butyl phthalate	2.0	U	5.0	2.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
Di-n-octyl phthalate	5.0	U	11	5.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
Dibenz(a,h)anthracene	0.10	U	0.50	0.10	ug/L		12/06/21 09:16	12/06/21 21:43	1
Dibenzofuran	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
Diethyl phthalate	2.0	U	5.0	2.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
Dimethyl phthalate	2.0	U	5.0	2.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
Fluoranthene	0.10	U	0.50	0.10	ug/L		12/06/21 09:16	12/06/21 21:43	1
Fluorene	0.12	U	0.50	0.12	ug/L		12/06/21 09:16	12/06/21 21:43	1
Hexachlorobenzene	0.11	U	0.50	0.11	ug/L		12/06/21 09:16	12/06/21 21:43	1
Hexachlorobutadiene	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
Hexachlorocyclopentadiene	5.0	U	11	5.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
Hexachloroethane	0.50	U	5.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
Indeno[1,2,3-cd]pyrene	0.11	U	0.50	0.11	ug/L		12/06/21 09:16	12/06/21 21:43	1
Isophorone	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
N-Nitrosodi-n-propylamine	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
N-Nitrosodiphenylamine	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
Naphthalene	0.10	U	0.50	0.10	ug/L		12/06/21 09:16	12/06/21 21:43	1
Nitrobenzene	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
Phenanthrene	0.11	U	0.50	0.11	ug/L		12/06/21 09:16	12/06/21 21:43	1
Phenol	0.50	U	2.0	0.50	ug/L		12/06/21 09:16	12/06/21 21:43	1
Pyrene	0.10	U	0.50	0.10	ug/L		12/06/21 09:16	12/06/21 21:43	1

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

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

Lab Sample ID: MB 410-201710/1-A

Matrix: Water

Analysis Batch: 202078

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201710

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	1.0	U	5.0	1.0	ug/L		12/06/21 09:16	12/06/21 21:43	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	84		31 - 119				12/06/21 09:16	12/06/21 21:43	1
Nitrobenzene-d5 (Surr)	74		22 - 117				12/06/21 09:16	12/06/21 21:43	1
2-Fluorophenol (Surr)	43		10 - 78				12/06/21 09:16	12/06/21 21:43	1
2-Fluorobiphenyl (Surr)	63		35 - 100				12/06/21 09:16	12/06/21 21:43	1
2,4,6-Tribromophenol (Surr)	78		10 - 150				12/06/21 09:16	12/06/21 21:43	1
Phenol-d5 (Surr)	34		10 - 67				12/06/21 09:16	12/06/21 21:43	1

Lab Sample ID: LCS 410-201710/2-A

Matrix: Water

Analysis Batch: 202078

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201710

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	50.0	34.7		ug/L		69	53 - 120
1,2,4,5-Tetrachlorobenzene	50.0	32.9		ug/L		66	39 - 120
2,2'-oxybis[1-chloropropane]	50.0	36.8		ug/L		74	48 - 120
2,3,4,6-Tetrachlorophenol	50.0	36.7		ug/L		73	65 - 123
2,4,5-Trichlorophenol	50.0	39.4		ug/L		79	66 - 120
2,4,6-Trichlorophenol	50.0	39.3		ug/L		79	63 - 120
2,4-Dichlorophenol	50.0	38.0		ug/L		76	64 - 120
2,4-Dimethylphenol	50.0	41.4		ug/L		83	64 - 107
2,4-Dinitrophenol	100	64.8		ug/L		65	33 - 132
2,4-Dinitrotoluene	50.0	40.2		ug/L		80	71 - 120
2,6-Dinitrotoluene	50.0	41.3		ug/L		83	72 - 120
2-Chloronaphthalene	50.0	33.7		ug/L		67	51 - 120
2-Chlorophenol	50.0	37.1		ug/L		74	57 - 120
2-Methylnaphthalene	50.0	34.6		ug/L		69	53 - 120
2-Methylphenol	50.0	36.4		ug/L		73	51 - 120
2-Nitroaniline	50.0	40.3		ug/L		81	67 - 120
2-Nitrophenol	50.0	39.4		ug/L		79	59 - 120
3,3'-Dichlorobenzidine	100	67.3		ug/L		67	42 - 107
3-Nitroaniline	50.0	32.4		ug/L		65	52 - 120
4,6-Dinitro-2-methylphenol	100	76.8		ug/L		77	53 - 123
4-Bromophenyl-phenylether	50.0	38.0		ug/L		76	66 - 120
4-Chloro-3-methylphenol	50.0	44.7		ug/L		89	60 - 120
4-Methylphenol	50.0	32.4		ug/L		65	44 - 120
4-Nitroaniline	50.0	33.5		ug/L		67	60 - 120
4-Nitrophenol	100	46.7		ug/L		47	19 - 120
Acenaphthene	50.0	37.7		ug/L		75	59 - 120
Acenaphthylene	50.0	38.6		ug/L		77	63 - 121
Acetophenone	50.0	38.1		ug/L		76	62 - 120
Anthracene	50.0	37.7		ug/L		75	73 - 120
Atrazine	50.0	49.8		ug/L		100	66 - 122
Benzaldehyde	50.0	49.2		ug/L		98	45 - 120
Benzo[a]anthracene	50.0	37.6		ug/L		75	74 - 120
Benzo[a]pyrene	50.0	35.0		ug/L		70	60 - 116

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

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

Lab Sample ID: LCS 410-201710/2-A

Matrix: Water

Analysis Batch: 202078

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201710

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzo[b]fluoranthene	50.0	38.6		ug/L		77	71 - 120
Benzo[g,h,i]perylene	50.0	32.0		ug/L		64	60 - 120
Benzo[k]fluoranthene	50.0	39.2		ug/L		78	78 - 120
Bis(2-chloroethoxy)methane	50.0	39.2		ug/L		78	62 - 120
Bis(2-chloroethyl)ether	50.0	36.7		ug/L		73	62 - 120
Bis(2-ethylhexyl) phthalate	50.0	38.9		ug/L		78	60 - 120
Butylbenzylphthalate	50.0	30.1		ug/L		60	11 - 125
Caprolactam	50.0	12.4		ug/L		25	12 - 120
Carbazole	50.0	38.0		ug/L		76	74 - 120
Chrysene	50.0	34.9	*	ug/L		70	76 - 120
Di-n-butyl phthalate	50.0	37.9		ug/L		76	53 - 120
Di-n-octyl phthalate	50.0	45.3		ug/L		91	59 - 120
Dibenz(a,h)anthracene	50.0	34.9		ug/L		70	62 - 120
Dibenzofuran	50.0	38.1		ug/L		76	60 - 112
Diethyl phthalate	50.0	36.7		ug/L		73	27 - 120
Dimethyl phthalate	50.0	27.0		ug/L		54	10 - 124
Fluoranthene	50.0	39.6		ug/L		79	74 - 120
Fluorene	50.0	39.1		ug/L		78	64 - 120
Hexachlorobenzene	50.0	36.3		ug/L		73	65 - 120
Hexachlorobutadiene	50.0	27.0		ug/L		54	24 - 120
Hexachlorocyclopentadiene	50.0	9.36	J	ug/L		19	10 - 120
Hexachloroethane	50.0	27.8		ug/L		56	22 - 120
Indeno[1,2,3-cd]pyrene	50.0	32.3		ug/L		65	52 - 121
Isophorone	50.0	41.1		ug/L		82	70 - 120
N-Nitrosodi-n-propylamine	50.0	39.7		ug/L		79	63 - 120
N-Nitrosodiphenylamine	42.5	31.8		ug/L		75	72 - 120
Naphthalene	50.0	35.6		ug/L		71	51 - 102
Nitrobenzene	50.0	38.5		ug/L		77	59 - 120
Phenanthrene	50.0	37.4		ug/L		75	72 - 120
Phenol	50.0	20.5		ug/L		41	22 - 120
Pyrene	50.0	37.9		ug/L		76	73 - 120
Pentachlorophenol	100	70.9		ug/L		71	48 - 123

Surrogate	LCS		Limits
	%Recovery	Qualifier	
p-Terphenyl-d14 (Surr)	79		31 - 119
Nitrobenzene-d5 (Surr)	77		22 - 117
2-Fluorophenol (Surr)	51		10 - 78
2-Fluorobiphenyl (Surr)	70		35 - 100
2,4,6-Tribromophenol (Surr)	83		10 - 150
Phenol-d5 (Surr)	40		10 - 67

Lab Sample ID: LCSD 410-201710/3-A

Matrix: Water

Analysis Batch: 202078

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 201710

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits	RPD	
		Result	Qualifier					RPD	Limit
1,1'-Biphenyl	50.0	36.0		ug/L		72	53 - 120	4	30
1,2,4,5-Tetrachlorobenzene	50.0	33.1		ug/L		66	39 - 120	1	30

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

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

Lab Sample ID: LCSD 410-201710/3-A

Matrix: Water

Analysis Batch: 202078

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 201710

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Added	Result	Qualifier				Limits		Limit
2,2'-oxybis[1-chloropropane]	50.0	38.3		ug/L		77	48 - 120	4	30
2,3,4,6-Tetrachlorophenol	50.0	39.9		ug/L		80	65 - 123	8	30
2,4,5-Trichlorophenol	50.0	40.2		ug/L		80	66 - 120	2	30
2,4,6-Trichlorophenol	50.0	41.0		ug/L		82	63 - 120	4	30
2,4-Dichlorophenol	50.0	39.7		ug/L		79	64 - 120	4	30
2,4-Dimethylphenol	50.0	42.6		ug/L		85	64 - 107	3	30
2,4-Dinitrophenol	100	66.5		ug/L		66	33 - 132	3	30
2,4-Dinitrotoluene	50.0	40.7		ug/L		81	71 - 120	1	30
2,6-Dinitrotoluene	50.0	42.5		ug/L		85	72 - 120	3	30
2-Chloronaphthalene	50.0	34.6		ug/L		69	51 - 120	2	30
2-Chlorophenol	50.0	39.7		ug/L		79	57 - 120	7	30
2-Methylnaphthalene	50.0	35.2		ug/L		70	53 - 120	2	30
2-Methylphenol	50.0	37.5		ug/L		75	51 - 120	3	30
2-Nitroaniline	50.0	41.1		ug/L		82	67 - 120	2	30
2-Nitrophenol	50.0	40.6		ug/L		81	59 - 120	3	30
3,3'-Dichlorobenzidine	100	68.2		ug/L		68	42 - 107	1	30
3-Nitroaniline	50.0	34.8		ug/L		70	52 - 120	7	30
4,6-Dinitro-2-methylphenol	100	78.6		ug/L		79	53 - 123	2	30
4-Bromophenyl-phenylether	50.0	38.4		ug/L		77	66 - 120	1	30
4-Chloro-3-methylphenol	50.0	45.4		ug/L		91	60 - 120	2	30
4-Methylphenol	50.0	34.5		ug/L		69	44 - 120	6	30
4-Nitroaniline	50.0	34.0		ug/L		68	60 - 120	2	30
4-Nitrophenol	100	49.2		ug/L		49	19 - 120	5	30
Acenaphthene	50.0	38.6		ug/L		77	59 - 120	2	30
Acenaphthylene	50.0	38.2		ug/L		76	63 - 121	1	30
Acetophenone	50.0	40.0		ug/L		80	62 - 120	5	30
Anthracene	50.0	40.3		ug/L		81	73 - 120	7	30
Atrazine	50.0	49.2		ug/L		98	66 - 122	1	30
Benzaldehyde	50.0	49.2		ug/L		98	45 - 120	0	30
Benzo[a]anthracene	50.0	39.7		ug/L		79	74 - 120	5	30
Benzo[a]pyrene	50.0	36.3		ug/L		73	60 - 116	4	30
Benzo[b]fluoranthene	50.0	39.6		ug/L		79	71 - 120	3	30
Benzo[g,h,i]perylene	50.0	33.8		ug/L		68	60 - 120	6	30
Benzo[k]fluoranthene	50.0	41.2		ug/L		82	78 - 120	5	30
Bis(2-chloroethoxy)methane	50.0	39.6		ug/L		79	62 - 120	1	30
Bis(2-chloroethyl)ether	50.0	38.7		ug/L		77	62 - 120	5	30
Bis(2-ethylhexyl) phthalate	50.0	42.4		ug/L		85	60 - 120	9	30
Butylbenzylphthalate	50.0	29.7		ug/L		59	11 - 125	1	30
Caprolactam	50.0	12.1		ug/L		24	12 - 120	2	30
Carbazole	50.0	40.0		ug/L		80	74 - 120	5	30
Chrysene	50.0	37.4	*	ug/L		75	76 - 120	7	30
Di-n-butyl phthalate	50.0	39.6		ug/L		79	53 - 120	4	30
Di-n-octyl phthalate	50.0	48.5		ug/L		97	59 - 120	7	30
Dibenz(a,h)anthracene	50.0	36.3		ug/L		73	62 - 120	4	30
Dibenzofuran	50.0	38.0		ug/L		76	60 - 112	0	30
Diethyl phthalate	50.0	36.0		ug/L		72	27 - 120	2	30
Dimethyl phthalate	50.0	25.1		ug/L		50	10 - 124	7	30
Fluoranthene	50.0	41.1		ug/L		82	74 - 120	4	30
Fluorene	50.0	39.0		ug/L		78	64 - 120	0	30

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

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

Lab Sample ID: LCSD 410-201710/3-A

Matrix: Water

Analysis Batch: 202078

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 201710

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Hexachlorobenzene	50.0	38.2		ug/L		76	65 - 120	5	30	
Hexachlorobutadiene	50.0	28.1		ug/L		56	24 - 120	4	30	
Hexachlorocyclopentadiene	50.0	9.91	J	ug/L		20	10 - 120	6	30	
Hexachloroethane	50.0	28.8		ug/L		58	22 - 120	4	30	
Indeno[1,2,3-cd]pyrene	50.0	33.8		ug/L		68	52 - 121	5	30	
Isophorone	50.0	42.1		ug/L		84	70 - 120	3	30	
N-Nitrosodi-n-propylamine	50.0	41.3		ug/L		83	63 - 120	4	30	
N-Nitrosodiphenylamine	42.5	34.4		ug/L		81	72 - 120	8	30	
Naphthalene	50.0	37.2		ug/L		74	51 - 102	5	30	
Nitrobenzene	50.0	40.4		ug/L		81	59 - 120	5	30	
Phenanthrene	50.0	39.1		ug/L		78	72 - 120	5	30	
Phenol	50.0	21.4		ug/L		43	22 - 120	4	30	
Pyrene	50.0	40.3		ug/L		81	73 - 120	6	30	
Pentachlorophenol	100	75.9		ug/L		76	48 - 123	7	30	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
p-Terphenyl-d14 (Surr)	86		31 - 119
Nitrobenzene-d5 (Surr)	80		22 - 117
2-Fluorophenol (Surr)	52		10 - 78
2-Fluorobiphenyl (Surr)	71		35 - 100
2,4,6-Tribromophenol (Surr)	81		10 - 150
Phenol-d5 (Surr)	41		10 - 67

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-201063/1-A

Matrix: Water

Analysis Batch: 201019

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201063

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin (1C)	0.0020	U	0.020	0.0020	ug/L		12/03/21 08:38	12/03/21 15:18	1
alpha-BHC (1C)	0.0030	U	0.020	0.0030	ug/L		12/03/21 08:38	12/03/21 15:18	1
alpha-Chlordane (1C)	0.0030	U	0.020	0.0030	ug/L		12/03/21 08:38	12/03/21 15:18	1
beta-BHC (1C)	0.00835	J	0.020	0.0034	ug/L		12/03/21 08:38	12/03/21 15:18	1
delta-BHC (1C)	0.0034	U	0.020	0.0034	ug/L		12/03/21 08:38	12/03/21 15:18	1
Dieldrin (1C)	0.0053	U	0.030	0.0053	ug/L		12/03/21 08:38	12/03/21 15:18	1
Endosulfan I (1C)	0.0043	U	0.020	0.0043	ug/L		12/03/21 08:38	12/03/21 15:18	1
Endosulfan II (1C)	0.015	U	0.040	0.015	ug/L		12/03/21 08:38	12/03/21 15:18	1
Endosulfan sulfate (1C)	0.0058	U	0.030	0.0058	ug/L		12/03/21 08:38	12/03/21 15:18	1
Endrin (1C)	0.0081	U	0.030	0.0081	ug/L		12/03/21 08:38	12/03/21 15:18	1
Endrin aldehyde (1C)	0.020	U	0.10	0.020	ug/L		12/03/21 08:38	12/03/21 15:18	1
Endrin ketone (1C)	0.0050	U	0.030	0.0050	ug/L		12/03/21 08:38	12/03/21 15:18	1
gamma-BHC (Lindane) (1C)	0.0020	U	0.020	0.0020	ug/L		12/03/21 08:38	12/03/21 15:18	1
gamma-Chlordane (1C)	0.0070	U	0.040	0.0070	ug/L		12/03/21 08:38	12/03/21 15:18	1
Heptachlor (1C)	0.0020	U	0.020	0.0020	ug/L		12/03/21 08:38	12/03/21 15:18	1
Heptachlor epoxide (1C)	0.0023	U	0.020	0.0023	ug/L		12/03/21 08:38	12/03/21 15:18	1
Methoxychlor (1C)	0.030	U	0.11	0.030	ug/L		12/03/21 08:38	12/03/21 15:18	1
Toxaphene (1C)	0.30	U	1.0	0.30	ug/L		12/03/21 08:38	12/03/21 15:18	1
p,p'-DDD (1C)	0.0050	U	0.030	0.0050	ug/L		12/03/21 08:38	12/03/21 15:18	1

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

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

Lab Sample ID: MB 410-201063/1-A

Matrix: Water

Analysis Batch: 201019

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201063

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
p,p'-DDE (1C)	0.0050	U	0.030	0.0050	ug/L		12/03/21 08:38	12/03/21 15:18	1
p,p'-DDT (1C)	0.0052	U	0.030	0.0052	ug/L		12/03/21 08:38	12/03/21 15:18	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	85		20 - 149	12/03/21 08:38	12/03/21 15:18	1
DCB Decachlorobiphenyl (Surr) (2C)	97		20 - 149	12/03/21 08:38	12/03/21 15:18	1
Tetrachloro-m-xylene (Surr) (1C)	93		20 - 129	12/03/21 08:38	12/03/21 15:18	1
Tetrachloro-m-xylene (Surr) (2C)	94		20 - 129	12/03/21 08:38	12/03/21 15:18	1

Lab Sample ID: LCS 410-201063/2-A

Matrix: Water

Analysis Batch: 201019

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201063

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Aldrin (1C)	0.101	0.105		ug/L		104	10 - 148
alpha-BHC (1C)	0.101	0.119		ug/L		117	47 - 132
beta-BHC (1C)	0.100	0.117		ug/L		117	65 - 139
delta-BHC (1C)	0.100	0.121		ug/L		121	56 - 141
Dieldrin (1C)	0.200	0.247		ug/L		123	58 - 145
Endosulfan I (1C)	0.101	0.111		ug/L		110	40 - 138
Endosulfan II (1C)	0.201	0.244		ug/L		121	61 - 138
Endosulfan sulfate (1C)	0.201	0.248		ug/L		123	41 - 133
Endrin (1C)	0.200	0.249		ug/L		125	63 - 131
Endrin aldehyde (1C)	0.201	0.232		ug/L		115	57 - 135
gamma-BHC (Lindane) (1C)	0.100	0.112		ug/L		112	61 - 139
Heptachlor (1C)	0.101	0.107		ug/L		106	35 - 136
Heptachlor epoxide (1C)	0.100	0.118		ug/L		118	59 - 146
Methoxychlor (1C)	1.01	1.22		ug/L		121	66 - 148
p,p'-DDD (1C)	0.201	0.261		ug/L		130	42 - 148
p,p'-DDE (1C)	0.201	0.238		ug/L		118	20 - 140
p,p'-DDT (1C)	0.201	0.241		ug/L		120	40 - 145

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr) (1C)	76		20 - 149
DCB Decachlorobiphenyl (Surr) (2C)	79		20 - 149
Tetrachloro-m-xylene (Surr) (1C)	93		20 - 129
Tetrachloro-m-xylene (Surr) (2C)	96		20 - 129

Lab Sample ID: LCSD 410-201063/3-A

Matrix: Water

Analysis Batch: 201019

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 201063

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
		Result	Qualifier						
Aldrin (1C)	0.101	0.0996		ug/L		98	10 - 148	6	30
alpha-BHC (1C)	0.101	0.117		ug/L		116	47 - 132	2	30

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

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

Lab Sample ID: LCSD 410-201063/3-A

Matrix: Water

Analysis Batch: 201019

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 201063

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	RPD Limit
							Limits	RPD		
beta-BHC (1C)	0.100	0.115		ug/L		115	65 - 139	2	30	
delta-BHC (1C)	0.100	0.119		ug/L		119	56 - 141	2	30	
Dieldrin (1C)	0.200	0.250		ug/L		125	58 - 145	1	30	
Endosulfan I (1C)	0.101	0.110		ug/L		108	40 - 138	1	30	
Endosulfan II (1C)	0.201	0.232		ug/L		115	61 - 138	5	30	
Endosulfan sulfate (1C)	0.201	0.238		ug/L		118	41 - 133	4	30	
Endrin (1C)	0.200	0.244		ug/L		122	63 - 131	2	30	
Endrin aldehyde (1C)	0.201	0.226		ug/L		112	57 - 135	2	20	
gamma-BHC (Lindane) (1C)	0.100	0.112		ug/L		112	61 - 139	0	30	
Heptachlor (1C)	0.101	0.103		ug/L		102	35 - 136	4	30	
Heptachlor epoxide (1C)	0.100	0.113		ug/L		113	59 - 146	4	30	
Methoxychlor (1C)	1.01	1.22		ug/L		121	66 - 148	0	30	
p,p'-DDD (1C)	0.201	0.244		ug/L		121	42 - 148	7	30	
p,p'-DDE (1C)	0.201	0.224		ug/L		111	20 - 140	6	30	
p,p'-DDT (1C)	0.201	0.238		ug/L		118	40 - 145	1	30	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr) (1C)	93		20 - 149
DCB Decachlorobiphenyl (Surr) (2C)	102		20 - 149
Tetrachloro-m-xylene (Surr) (1C)	87		20 - 129
Tetrachloro-m-xylene (Surr) (2C)	87		20 - 129

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-201187/1-A

Matrix: Water

Analysis Batch: 202925

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201187

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 10:59	1
Aluminum	0.16	U	0.31	0.16	mg/L		12/03/21 10:38	12/08/21 10:59	1
Arsenic	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 10:59	1
Barium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 10:59	1
Beryllium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 10:59	1
Cadmium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:38	12/08/21 10:59	1
Calcium	0.099	U	0.52	0.099	mg/L		12/03/21 10:38	12/08/21 10:59	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/03/21 10:38	12/08/21 10:59	1
Cobalt	0.0015	U	0.0052	0.0015	mg/L		12/03/21 10:38	12/08/21 10:59	1
Copper	0.012	U	0.021	0.012	mg/L		12/03/21 10:38	12/08/21 10:59	1
Iron	0.041	U	0.21	0.041	mg/L		12/03/21 10:38	12/08/21 10:59	1
Lead	0.0073	U ^3+	0.015	0.0073	mg/L		12/03/21 10:38	12/08/21 10:59	1
Magnesium	0.041	U ^5-	0.10	0.041	mg/L		12/03/21 10:38	12/08/21 10:59	1
Manganese	0.0031	U	0.010	0.0031	mg/L		12/03/21 10:38	12/08/21 10:59	1
Nickel	0.0022	U	0.010	0.0022	mg/L		12/03/21 10:38	12/08/21 10:59	1
Potassium	0.21	U	0.52	0.21	mg/L		12/03/21 10:38	12/08/21 10:59	1
Selenium	0.016	U	0.052	0.016	mg/L		12/03/21 10:38	12/08/21 10:59	1

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

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

Lab Sample ID: MB 410-201187/1-A
Matrix: Water
Analysis Batch: 202925

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201187

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/03/21 10:38	12/08/21 10:59	1
Sodium	0.25	U	1.0	0.25	mg/L		12/03/21 10:38	12/08/21 10:59	1
Zinc	0.0038	U	0.021	0.0038	mg/L		12/03/21 10:38	12/08/21 10:59	1
Vanadium	0.0020	U	0.010	0.0020	mg/L		12/03/21 10:38	12/08/21 10:59	1

Lab Sample ID: MB 410-201187/1-A
Matrix: Water
Analysis Batch: 203044

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201187

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Thallium	0.0083	U	0.031	0.0083	mg/L		12/03/21 10:38	12/08/21 15:13	1

Lab Sample ID: LCS 410-201187/2-A
Matrix: Water
Analysis Batch: 202925

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	5.00	5.26		mg/L		105	80 - 120
Arsenic	0.500	0.495		mg/L		99	80 - 120
Barium	0.500	0.535		mg/L		107	80 - 120
Beryllium	0.0500	0.0521		mg/L		104	80 - 120
Cadmium	0.0500	0.0528		mg/L		106	80 - 120
Calcium	5.00	4.96		mg/L		99	80 - 120
Chromium	0.500	0.526		mg/L		105	80 - 120
Cobalt	0.500	0.539		mg/L		108	80 - 120
Copper	0.500	0.517		mg/L		103	80 - 120
Iron	5.00	5.31		mg/L		106	80 - 120
Lead	0.0500	0.0542	^3+	mg/L		108	80 - 120
Magnesium	5.00	5.06	^5-	mg/L		101	80 - 120
Manganese	0.500	0.522		mg/L		104	80 - 120
Nickel	0.500	0.529		mg/L		106	80 - 120
Potassium	5.00	5.11		mg/L		102	80 - 120
Selenium	0.100	0.110		mg/L		110	80 - 120
Silver	0.0500	0.0527	^5-	mg/L		105	80 - 120
Sodium	5.00	5.00		mg/L		100	80 - 120
Zinc	0.500	0.507		mg/L		101	80 - 120
Vanadium	0.500	0.518		mg/L		104	80 - 120

Lab Sample ID: LCS 410-201187/2-A
Matrix: Water
Analysis Batch: 203044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

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

Lab Sample ID: MB 410-201195/1-A
Matrix: Water
Analysis Batch: 201889

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201195

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 11:21	1
Aluminum	0.16	U	0.31	0.16	mg/L		12/03/21 10:47	12/06/21 11:21	1
Arsenic	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 11:21	1
Barium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 11:21	1
Beryllium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 11:21	1
Cadmium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 11:21	1
Calcium	0.099	U	0.52	0.099	mg/L		12/03/21 10:47	12/06/21 11:21	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/03/21 10:47	12/06/21 11:21	1
Cobalt	0.0015	U	0.0052	0.0015	mg/L		12/03/21 10:47	12/06/21 11:21	1
Copper	0.012	U	0.021	0.012	mg/L		12/03/21 10:47	12/06/21 11:21	1
Iron	0.041	U	0.21	0.041	mg/L		12/03/21 10:47	12/06/21 11:21	1
Lead	0.0073	U ^3+	0.015	0.0073	mg/L		12/03/21 10:47	12/06/21 11:21	1
Magnesium	0.041	U ^5-	0.10	0.041	mg/L		12/03/21 10:47	12/06/21 11:21	1
Manganese	0.0031	U	0.010	0.0031	mg/L		12/03/21 10:47	12/06/21 11:21	1
Nickel	0.0022	U	0.010	0.0022	mg/L		12/03/21 10:47	12/06/21 11:21	1
Potassium	0.21	U ^3+	0.52	0.21	mg/L		12/03/21 10:47	12/06/21 11:21	1
Selenium	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 11:21	1
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/03/21 10:47	12/06/21 11:21	1
Sodium	0.25	U	1.0	0.25	mg/L		12/03/21 10:47	12/06/21 11:21	1
Thallium	0.0083	U	0.031	0.0083	mg/L		12/03/21 10:47	12/06/21 11:21	1
Zinc	0.0038	U	0.021	0.0038	mg/L		12/03/21 10:47	12/06/21 11:21	1
Vanadium	0.0020	U	0.010	0.0020	mg/L		12/03/21 10:47	12/06/21 11:21	1

Lab Sample ID: LCS 410-201195/2-A
Matrix: Water
Analysis Batch: 201889

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201195

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Antimony	0.100	0.100		mg/L		100	80 - 120
Aluminum	5.00	4.93		mg/L		99	80 - 120
Arsenic	0.500	0.518		mg/L		104	80 - 120
Barium	0.500	0.513		mg/L		103	80 - 120
Beryllium	0.0500	0.0508		mg/L		102	80 - 120
Cadmium	0.0500	0.0512		mg/L		103	80 - 120
Calcium	5.00	5.06		mg/L		101	80 - 120
Chromium	0.500	0.535		mg/L		107	80 - 120
Cobalt	0.500	0.511		mg/L		102	80 - 120
Copper	0.500	0.511		mg/L		102	80 - 120
Iron	5.00	5.13		mg/L		103	80 - 120
Lead	0.0500	0.0538	^3+	mg/L		108	80 - 120
Magnesium	5.00	5.09	^5-	mg/L		102	80 - 120
Manganese	0.500	0.522		mg/L		104	80 - 120
Nickel	0.500	0.514		mg/L		103	80 - 120
Selenium	0.100	0.103		mg/L		103	80 - 120
Silver	0.0500	0.0522	^5-	mg/L		104	80 - 120
Sodium	5.00	5.21		mg/L		104	80 - 120
Thallium	0.100	0.102		mg/L		102	80 - 120
Zinc	0.500	0.505		mg/L		101	80 - 120
Vanadium	0.500	0.526		mg/L		105	80 - 120

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Method: 6010D - Metals (ICP)

Lab Sample ID: LCS 410-201195/2-A
Matrix: Water
Analysis Batch: 202390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201195

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	5.00	5.14		mg/L		103	80 - 120

Lab Sample ID: MB 410-200944/1-A
Matrix: Water
Analysis Batch: 201444

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 200944

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.050	0.016	mg/L		12/02/21 20:15	12/03/21 20:25	1
Aluminum	0.15	U	0.30	0.15	mg/L		12/02/21 20:15	12/03/21 20:25	1
Barium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:15	12/03/21 20:25	1
Beryllium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:15	12/03/21 20:25	1
Cadmium	0.0010	U	0.0050	0.0010	mg/L		12/02/21 20:15	12/03/21 20:25	1
Calcium	0.096	U	0.50	0.096	mg/L		12/02/21 20:15	12/03/21 20:25	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/02/21 20:15	12/03/21 20:25	1
Cobalt	0.0015	U	0.0050	0.0015	mg/L		12/02/21 20:15	12/03/21 20:25	1
Copper	0.012	U	0.020	0.012	mg/L		12/02/21 20:15	12/03/21 20:25	1
Iron	0.040	U	0.20	0.040	mg/L		12/02/21 20:15	12/03/21 20:25	1
Lead	0.0071	U	0.015	0.0071	mg/L		12/02/21 20:15	12/03/21 20:25	1
Magnesium	0.040	U	0.10	0.040	mg/L		12/02/21 20:15	12/03/21 20:25	1
Manganese	0.0030	U	0.010	0.0030	mg/L		12/02/21 20:15	12/03/21 20:25	1
Nickel	0.0021	U	0.010	0.0021	mg/L		12/02/21 20:15	12/03/21 20:25	1
Selenium	0.016	U	0.050	0.016	mg/L		12/02/21 20:15	12/03/21 20:25	1
Silver	0.0050	U ^5-	0.010	0.0050	mg/L		12/02/21 20:15	12/03/21 20:25	1
Sodium	0.24	U	1.0	0.24	mg/L		12/02/21 20:15	12/03/21 20:25	1
Zinc	0.0037	U	0.020	0.0037	mg/L		12/02/21 20:15	12/03/21 20:25	1
Vanadium	0.0019	U	0.010	0.0019	mg/L		12/02/21 20:15	12/03/21 20:25	1

Lab Sample ID: MB 410-200944/1-A
Matrix: Water
Analysis Batch: 202452

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 200944

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.016	U	0.050	0.016	mg/L		12/02/21 20:15	12/07/21 12:32	1
Potassium	0.20	U	0.50	0.20	mg/L		12/02/21 20:15	12/07/21 12:32	1
Thallium	0.0081	U	0.030	0.0081	mg/L		12/02/21 20:15	12/07/21 12:32	1

Lab Sample ID: LCS 410-200944/2-A
Matrix: Water
Analysis Batch: 201444

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 200944

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.111		mg/L		111	80 - 120
Aluminum	5.00	4.87		mg/L		97	80 - 120
Barium	0.500	0.508		mg/L		102	80 - 120
Beryllium	0.0500	0.0516		mg/L		103	80 - 120
Cadmium	0.0500	0.0506		mg/L		101	80 - 120
Calcium	5.00	5.04		mg/L		101	80 - 120
Chromium	0.500	0.500		mg/L		100	80 - 120
Cobalt	0.500	0.523		mg/L		105	80 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

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

Lab Sample ID: LCS 410-200944/2-A
Matrix: Water
Analysis Batch: 201444

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 200944

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Copper	0.500	0.505		mg/L		101	80 - 120
Iron	5.00	4.98		mg/L		100	80 - 120
Lead	0.0500	0.0500		mg/L		100	80 - 120
Magnesium	5.00	5.04		mg/L		101	80 - 120
Manganese	0.500	0.514		mg/L		103	80 - 120
Nickel	0.500	0.518		mg/L		104	80 - 120
Selenium	0.100	0.119		mg/L		119	80 - 120
Silver	0.0500	0.0517	^5-	mg/L		103	80 - 120
Sodium	5.00	4.97		mg/L		99	80 - 120
Zinc	0.500	0.514		mg/L		103	80 - 120
Vanadium	0.500	0.502		mg/L		100	80 - 120

Lab Sample ID: LCS 410-200944/2-A
Matrix: Water
Analysis Batch: 202452

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 200944

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Arsenic	0.500	0.502		mg/L		100	80 - 120
Potassium	5.00	4.82		mg/L		96	80 - 120
Thallium	0.100	0.0868		mg/L		87	80 - 120

Lab Sample ID: 410-65209-2 MS
Matrix: Water
Analysis Batch: 201889

Client Sample ID: GI-13P
Prep Type: Dissolved
Prep Batch: 201195

Analyte	Sample Result	Sample Qualifier	Spike Added	MS	MS	Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Antimony	0.016	U	0.100	0.106		mg/L		106	75 - 125
Aluminum	0.16	U	5.00	5.15		mg/L		103	75 - 125
Arsenic	0.016	U	0.500	0.521		mg/L		104	75 - 125
Barium	0.065		0.500	0.588		mg/L		105	75 - 125
Beryllium	0.0010	U	0.0500	0.0536		mg/L		107	75 - 125
Cadmium	0.0010	U	0.0500	0.0503		mg/L		101	75 - 125
Calcium	210		5.00	211	4	mg/L		90	75 - 125
Chromium	0.0016	U	0.500	0.531		mg/L		106	75 - 125
Cobalt	0.0015	U	0.500	0.501		mg/L		100	75 - 125
Copper	0.012	U	0.500	0.511		mg/L		102	75 - 125
Iron	0.61		5.00	5.84		mg/L		104	75 - 125
Lead	0.0073	U ^3+	0.0500	0.0506	^3+	mg/L		101	75 - 125
Magnesium	12	^5-	5.00	17.0	^5-	mg/L		101	75 - 125
Manganese	1.8		0.500	2.32		mg/L		103	75 - 125
Nickel	0.0022	U	0.500	0.491		mg/L		98	75 - 125
Selenium	0.016	U	0.100	0.106		mg/L		106	75 - 125
Silver	0.0052	U ^5-	0.0500	0.0521	^5-	mg/L		104	75 - 125
Sodium	64		5.00	70.0	4	mg/L		112	75 - 125
Thallium	0.0083	U	0.100	0.101		mg/L		101	75 - 125
Zinc	0.0038	U	0.500	0.507		mg/L		101	75 - 125
Vanadium	0.0020	U	0.500	0.534		mg/L		107	75 - 125

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

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

Lab Sample ID: 410-65209-2 MS
Matrix: Water
Analysis Batch: 202390

Client Sample ID: GI-13P
Prep Type: Dissolved
Prep Batch: 201195

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	33		5.00	38.3	4	mg/L		102	75 - 125

Lab Sample ID: 410-65209-2 MSD
Matrix: Water
Analysis Batch: 201889

Client Sample ID: GI-13P
Prep Type: Dissolved
Prep Batch: 201195

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.016	U	0.100	0.107		mg/L		107	75 - 125	1	20
Aluminum	0.16	U	5.00	5.11		mg/L		102	75 - 125	1	20
Arsenic	0.016	U	0.500	0.524		mg/L		105	75 - 125	1	20
Barium	0.065		0.500	0.590		mg/L		105	75 - 125	0	20
Beryllium	0.0010	U	0.0500	0.0535		mg/L		107	75 - 125	0	20
Cadmium	0.0010	U	0.0500	0.0501		mg/L		100	75 - 125	0	20
Calcium	210		5.00	210	4	mg/L		77	75 - 125	0	20
Chromium	0.0016	U	0.500	0.530		mg/L		106	75 - 125	0	20
Cobalt	0.0015	U	0.500	0.497		mg/L		99	75 - 125	1	20
Copper	0.012	U	0.500	0.511		mg/L		102	75 - 125	0	20
Iron	0.61		5.00	5.80		mg/L		104	75 - 125	1	20
Lead	0.0073	U ^3+	0.0500	0.0566	^3+	mg/L		113	75 - 125	11	20
Magnesium	12	^5-	5.00	16.8	^5-	mg/L		98	75 - 125	1	20
Manganese	1.8		0.500	2.33		mg/L		104	75 - 125	0	20
Nickel	0.0022	U	0.500	0.487		mg/L		97	75 - 125	1	20
Selenium	0.016	U	0.100	0.114		mg/L		114	75 - 125	7	20
Silver	0.0052	U ^5-	0.0500	0.0521	^5-	mg/L		104	75 - 125	0	20
Sodium	64		5.00	69.3	4	mg/L		98	75 - 125	1	20
Thallium	0.0083	U	0.100	0.0948		mg/L		95	75 - 125	6	20
Zinc	0.0038	U	0.500	0.503		mg/L		101	75 - 125	1	20
Vanadium	0.0020	U	0.500	0.535		mg/L		107	75 - 125	0	20

Lab Sample ID: 410-65209-2 MSD
Matrix: Water
Analysis Batch: 202390

Client Sample ID: GI-13P
Prep Type: Dissolved
Prep Batch: 201195

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Potassium	33		5.00	38.5	4	mg/L		106	75 - 125	1	20

Lab Sample ID: 410-65209-2 DU
Matrix: Water
Analysis Batch: 201889

Client Sample ID: GI-13P
Prep Type: Dissolved
Prep Batch: 201195

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	0.016	U	0.016	U	mg/L		NC	20
Aluminum	0.16	U	0.16	U	mg/L		NC	20
Arsenic	0.016	U	0.016	U	mg/L		NC	20
Barium	0.065		0.0647		mg/L		0.6	20
Beryllium	0.0010	U	0.0010	U	mg/L		NC	20
Cadmium	0.0010	U	0.0010	U	mg/L		NC	20
Calcium	210		206		mg/L		0.05	20
Chromium	0.0016	U	0.0016	U	mg/L		NC	20

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

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

Lab Sample ID: 410-65209-2 DU
Matrix: Water
Analysis Batch: 201889

Client Sample ID: GI-13P
Prep Type: Dissolved
Prep Batch: 201195

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Cobalt	0.0015	U	0.0015	U	mg/L		NC	20
Copper	0.012	U	0.012	U	mg/L		NC	20
Iron	0.61		0.609		mg/L		0.9	20
Lead	0.0073	U ^3+	0.0073	U ^3+	mg/L		NC	20
Magnesium	12	^5-	11.9		mg/L		0.3	20
Manganese	1.8		1.80		mg/L		0.5	20
Nickel	0.0022	U	0.0022	U	mg/L		NC	20
Selenium	0.016	U	0.016	U	mg/L		NC	20
Silver	0.0052	U ^5-	0.0052	U	mg/L		NC	20
Sodium	64		64.4		mg/L		0	20
Thallium	0.0083	U	0.0083	U	mg/L		NC	20
Zinc	0.0038	U	0.0038	U	mg/L		NC	20
Vanadium	0.0020	U	0.0020	U	mg/L		NC	20

Lab Sample ID: 410-65209-2 DU
Matrix: Water
Analysis Batch: 202390

Client Sample ID: GI-13P
Prep Type: Dissolved
Prep Batch: 201195

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Potassium	33		33.5		mg/L		0.9	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-200982/1-A
Matrix: Water
Analysis Batch: 201286

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 200982

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.079	U	0.20	0.079	ug/L		12/02/21 21:44	12/03/21 12:53	1

Lab Sample ID: LCS 410-200982/2-A
Matrix: Water
Analysis Batch: 201286

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 200982

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

Lab Sample ID: MB 410-201029/1-A
Matrix: Water
Analysis Batch: 201286

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201029

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.079	U	0.20	0.079	ug/L		12/03/21 06:31	12/03/21 13:52	1

Lab Sample ID: LCS 410-201029/2-A
Matrix: Water
Analysis Batch: 201286

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201029

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

GC/MS VOA

Analysis Batch: 202219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-1	GI-15P	Total/NA	Water	8260C	
410-65209-2	GI-13P	Total/NA	Water	8260C	
410-65209-3	PS-04P	Total/NA	Water	8260C	
410-65209-4	PS-04AP	Total/NA	Water	8260C	
MB 410-202219/9	Method Blank	Total/NA	Water	8260C	
LCS 410-202219/5	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 201710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-1	GI-15P	Total/NA	Water	3510C	
410-65209-2	GI-13P	Total/NA	Water	3510C	
410-65209-3	PS-04P	Total/NA	Water	3510C	
410-65209-4	PS-04AP	Total/NA	Water	3510C	
MB 410-201710/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-201710/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-201710/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 202078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-201710/1-A	Method Blank	Total/NA	Water	8270D	201710
LCS 410-201710/2-A	Lab Control Sample	Total/NA	Water	8270D	201710
LCSD 410-201710/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	201710

Analysis Batch: 203085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-1	GI-15P	Total/NA	Water	8270D	201710
410-65209-2	GI-13P	Total/NA	Water	8270D	201710
410-65209-3	PS-04P	Total/NA	Water	8270D	201710
410-65209-4	PS-04AP	Total/NA	Water	8270D	201710

GC Semi VOA

Analysis Batch: 201019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-1	GI-15P	Total/NA	Water	8081B	201063
410-65209-2	GI-13P	Total/NA	Water	8081B	201063
410-65209-3	PS-04P	Total/NA	Water	8081B	201063
410-65209-4	PS-04AP	Total/NA	Water	8081B	201063
MB 410-201063/1-A	Method Blank	Total/NA	Water	8081B	201063
LCS 410-201063/2-A	Lab Control Sample	Total/NA	Water	8081B	201063
LCSD 410-201063/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	201063

Prep Batch: 201063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-1	GI-15P	Total/NA	Water	3510C	
410-65209-2	GI-13P	Total/NA	Water	3510C	
410-65209-3	PS-04P	Total/NA	Water	3510C	
410-65209-4	PS-04AP	Total/NA	Water	3510C	
MB 410-201063/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-201063/2-A	Lab Control Sample	Total/NA	Water	3510C	

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QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

GC Semi VOA (Continued)

Prep Batch: 201063 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 410-201063/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Metals

Prep Batch: 200944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-1	GI-15P	Total Recoverable	Water	3005A	
410-65209-2	GI-13P	Total Recoverable	Water	3005A	
410-65209-3	PS-04P	Total Recoverable	Water	3005A	
410-65209-4	PS-04AP	Total Recoverable	Water	3005A	
MB 410-200944/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-200944/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 200982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-1	GI-15P	Total/NA	Water	7470A	
410-65209-2	GI-13P	Total/NA	Water	7470A	
410-65209-3	PS-04P	Total/NA	Water	7470A	
410-65209-4	PS-04AP	Total/NA	Water	7470A	
MB 410-200982/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-200982/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 201029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-1	GI-15P	Dissolved	Water	7470A	201034
410-65209-2	GI-13P	Dissolved	Water	7470A	201034
410-65209-3	PS-04P	Dissolved	Water	7470A	201034
410-65209-4	PS-04AP	Dissolved	Water	7470A	201034
MB 410-201029/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-201029/2-A	Lab Control Sample	Total/NA	Water	7470A	

Filtration Batch: 201034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-1	GI-15P	Dissolved	Water	Filtration	
410-65209-2	GI-13P	Dissolved	Water	Filtration	
410-65209-3	PS-04P	Dissolved	Water	Filtration	
410-65209-4	PS-04AP	Dissolved	Water	Filtration	
410-65209-2 MS	GI-13P	Dissolved	Water	Filtration	
410-65209-2 MSD	GI-13P	Dissolved	Water	Filtration	
410-65209-2 DU	GI-13P	Dissolved	Water	Filtration	

Prep Batch: 201187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-1	GI-15P	Dissolved	Water	Non-Digest Prep	201034
MB 410-201187/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-201187/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Prep Batch: 201195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-2	GI-13P	Dissolved	Water	Non-Digest Prep	201034
410-65209-3	PS-04P	Dissolved	Water	Non-Digest Prep	201034

QC Association Summary

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Metals (Continued)

Prep Batch: 201195 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-4	PS-04AP	Dissolved	Water	Non-Digest Prep	201034
MB 410-201195/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-201195/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	
410-65209-2 MS	GI-13P	Dissolved	Water	Non-Digest Prep	201034
410-65209-2 MSD	GI-13P	Dissolved	Water	Non-Digest Prep	201034
410-65209-2 DU	GI-13P	Dissolved	Water	Non-Digest Prep	201034

Analysis Batch: 201286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-1	GI-15P	Dissolved	Water	7470A	201029
410-65209-1	GI-15P	Total/NA	Water	7470A	200982
410-65209-2	GI-13P	Dissolved	Water	7470A	201029
410-65209-2	GI-13P	Total/NA	Water	7470A	200982
410-65209-3	PS-04P	Dissolved	Water	7470A	201029
410-65209-3	PS-04P	Total/NA	Water	7470A	200982
410-65209-4	PS-04AP	Dissolved	Water	7470A	201029
410-65209-4	PS-04AP	Total/NA	Water	7470A	200982
MB 410-200982/1-A	Method Blank	Total/NA	Water	7470A	200982
MB 410-201029/1-A	Method Blank	Total/NA	Water	7470A	201029
LCS 410-200982/2-A	Lab Control Sample	Total/NA	Water	7470A	200982
LCS 410-201029/2-A	Lab Control Sample	Total/NA	Water	7470A	201029

Analysis Batch: 201444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-1	GI-15P	Total Recoverable	Water	6010D	200944
410-65209-2	GI-13P	Total Recoverable	Water	6010D	200944
410-65209-3	PS-04P	Total Recoverable	Water	6010D	200944
410-65209-4	PS-04AP	Total Recoverable	Water	6010D	200944
MB 410-200944/1-A	Method Blank	Total Recoverable	Water	6010D	200944
LCS 410-200944/2-A	Lab Control Sample	Total Recoverable	Water	6010D	200944

Analysis Batch: 201889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-2	GI-13P	Dissolved	Water	6010D	201195
410-65209-3	PS-04P	Dissolved	Water	6010D	201195
410-65209-4	PS-04AP	Dissolved	Water	6010D	201195
MB 410-201195/1-A	Method Blank	Total/NA	Water	6010D	201195
LCS 410-201195/2-A	Lab Control Sample	Total/NA	Water	6010D	201195
410-65209-2 MS	GI-13P	Dissolved	Water	6010D	201195
410-65209-2 MSD	GI-13P	Dissolved	Water	6010D	201195
410-65209-2 DU	GI-13P	Dissolved	Water	6010D	201195

Analysis Batch: 202390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-2	GI-13P	Dissolved	Water	6010D	201195
410-65209-3	PS-04P	Dissolved	Water	6010D	201195
410-65209-4	PS-04AP	Dissolved	Water	6010D	201195
LCS 410-201195/2-A	Lab Control Sample	Total/NA	Water	6010D	201195
410-65209-2 MS	GI-13P	Dissolved	Water	6010D	201195
410-65209-2 MSD	GI-13P	Dissolved	Water	6010D	201195
410-65209-2 DU	GI-13P	Dissolved	Water	6010D	201195

QC Association Summary

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Metals

Analysis Batch: 202452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-1	GI-15P	Total Recoverable	Water	6010D	200944
410-65209-2	GI-13P	Total Recoverable	Water	6010D	200944
410-65209-3	PS-04P	Total Recoverable	Water	6010D	200944
410-65209-4	PS-04AP	Total Recoverable	Water	6010D	200944
MB 410-200944/1-A	Method Blank	Total Recoverable	Water	6010D	200944
LCS 410-200944/2-A	Lab Control Sample	Total Recoverable	Water	6010D	200944

Analysis Batch: 202925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-1	GI-15P	Dissolved	Water	6010D	201187
MB 410-201187/1-A	Method Blank	Total/NA	Water	6010D	201187
LCS 410-201187/2-A	Lab Control Sample	Total/NA	Water	6010D	201187

Analysis Batch: 203044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-1	GI-15P	Dissolved	Water	6010D	201187
MB 410-201187/1-A	Method Blank	Total/NA	Water	6010D	201187
LCS 410-201187/2-A	Lab Control Sample	Total/NA	Water	6010D	201187

Analysis Batch: 203051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65209-1	GI-15P	Total Recoverable	Water	6010D	200944

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Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: GI-15P

Lab Sample ID: 410-65209-1

Date Collected: 12/01/21 09:55

Matrix: Water

Date Received: 12/01/21 17:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	202219	12/07/21 20:10	USEJ	ELLE
Total/NA	Prep	3510C			201710	12/06/21 09:16	BLX5	ELLE
Total/NA	Analysis	8270D		1	203085	12/09/21 00:11	DZ6A	ELLE
Total/NA	Prep	3510C			201063	12/03/21 08:38	BLX5	ELLE
Total/NA	Analysis	8081B		1	201019	12/03/21 16:34	WN70	ELLE
Dissolved	Filtration	Filtration			201034	12/03/21 07:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201187	12/03/21 10:38	WBK6	ELLE
Dissolved	Analysis	6010D		1	203044	12/08/21 15:26	WJM9	ELLE
Dissolved	Filtration	Filtration			201034	12/03/21 07:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201187	12/03/21 10:38	WBK6	ELLE
Dissolved	Analysis	6010D		1	202925	12/08/21 11:39	WJM9	ELLE
Total Recoverable	Prep	3005A			200944	12/02/21 20:15	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	201444	12/03/21 21:59	T8CQ	ELLE
Total Recoverable	Prep	3005A			200944	12/02/21 20:15	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	202452	12/07/21 12:57	WJM9	ELLE
Total Recoverable	Prep	3005A			200944	12/02/21 20:15	UAMX	ELLE
Total Recoverable	Analysis	6010D		5	203051	12/08/21 16:03	WJM9	ELLE
Dissolved	Filtration	Filtration			201034	12/03/21 07:00	UDL9	ELLE
Dissolved	Prep	7470A			201029	12/03/21 07:59	UAMX	ELLE
Dissolved	Analysis	7470A		1	201286	12/03/21 14:30	UEFS	ELLE
Total/NA	Prep	7470A			200982	12/02/21 21:44	UAMX	ELLE
Total/NA	Analysis	7470A		1	201286	12/03/21 13:23	UEFS	ELLE

Client Sample ID: GI-13P

Lab Sample ID: 410-65209-2

Date Collected: 12/01/21 11:10

Matrix: Water

Date Received: 12/01/21 17:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	202219	12/07/21 20:32	USEJ	ELLE
Total/NA	Prep	3510C			201710	12/06/21 09:16	BLX5	ELLE
Total/NA	Analysis	8270D		1	203085	12/09/21 00:40	DZ6A	ELLE
Total/NA	Prep	3510C			201063	12/03/21 08:38	BLX5	ELLE
Total/NA	Analysis	8081B		1	201019	12/03/21 17:06	WN70	ELLE
Dissolved	Filtration	Filtration			201034	12/03/21 07:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201195	12/03/21 10:47	WBK6	ELLE
Dissolved	Analysis	6010D		1	202390	12/07/21 10:43	WJM9	ELLE
Dissolved	Filtration	Filtration			201034	12/03/21 07:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201195	12/03/21 10:47	WBK6	ELLE
Dissolved	Analysis	6010D		1	201889	12/06/21 12:47	WJM9	ELLE
Total Recoverable	Prep	3005A			200944	12/02/21 20:15	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	201444	12/03/21 22:02	T8CQ	ELLE
Total Recoverable	Prep	3005A			200944	12/02/21 20:15	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	202452	12/07/21 13:00	WJM9	ELLE

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: GI-13P

Lab Sample ID: 410-65209-2

Date Collected: 12/01/21 11:10

Matrix: Water

Date Received: 12/01/21 17:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	Filtration			201034	12/03/21 07:00	UDL9	ELLE
Dissolved	Prep	7470A			201029	12/03/21 07:59	UAMX	ELLE
Dissolved	Analysis	7470A		1	201286	12/03/21 14:32	UEFS	ELLE
Total/NA	Prep	7470A			200982	12/02/21 21:44	UAMX	ELLE
Total/NA	Analysis	7470A		1	201286	12/03/21 13:33	UEFS	ELLE

Client Sample ID: PS-04P

Lab Sample ID: 410-65209-3

Date Collected: 12/01/21 12:15

Matrix: Water

Date Received: 12/01/21 17:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	202219	12/07/21 20:54	USEJ	ELLE
Total/NA	Prep	3510C			201710	12/06/21 09:16	BLX5	ELLE
Total/NA	Analysis	8270D		1	203085	12/09/21 01:10	DZ6A	ELLE
Total/NA	Prep	3510C			201063	12/03/21 08:38	BLX5	ELLE
Total/NA	Analysis	8081B		5	201019	12/03/21 17:17	WN70	ELLE
Dissolved	Filtration	Filtration			201034	12/03/21 07:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201195	12/03/21 10:47	WBK6	ELLE
Dissolved	Analysis	6010D		1	202390	12/07/21 10:33	WJM9	ELLE
Dissolved	Filtration	Filtration			201034	12/03/21 07:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201195	12/03/21 10:47	WBK6	ELLE
Dissolved	Analysis	6010D		1	201889	12/06/21 11:46	WJM9	ELLE
Total Recoverable	Prep	3005A			200944	12/02/21 20:15	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	201444	12/03/21 21:56	T8CQ	ELLE
Total Recoverable	Prep	3005A			200944	12/02/21 20:15	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	202452	12/07/21 12:54	WJM9	ELLE
Dissolved	Filtration	Filtration			201034	12/03/21 07:00	UDL9	ELLE
Dissolved	Prep	7470A			201029	12/03/21 07:59	UAMX	ELLE
Dissolved	Analysis	7470A		1	201286	12/03/21 14:34	UEFS	ELLE
Total/NA	Prep	7470A			200982	12/02/21 21:44	UAMX	ELLE
Total/NA	Analysis	7470A		1	201286	12/03/21 13:27	UEFS	ELLE

Client Sample ID: PS-04AP

Lab Sample ID: 410-65209-4

Date Collected: 12/01/21 13:35

Matrix: Water

Date Received: 12/01/21 17:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	202219	12/07/21 21:16	USEJ	ELLE
Total/NA	Prep	3510C			201710	12/06/21 09:16	BLX5	ELLE
Total/NA	Analysis	8270D		1	203085	12/09/21 01:39	DZ6A	ELLE
Total/NA	Prep	3510C			201063	12/03/21 08:38	BLX5	ELLE
Total/NA	Analysis	8081B		10	201019	12/03/21 17:27	WN70	ELLE
Dissolved	Filtration	Filtration			201034	12/03/21 07:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201195	12/03/21 10:47	WBK6	ELLE
Dissolved	Analysis	6010D		1	202390	12/07/21 10:37	WJM9	ELLE

Lab Chronicle

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Client Sample ID: PS-04AP

Lab Sample ID: 410-65209-4

Date Collected: 12/01/21 13:35

Matrix: Water

Date Received: 12/01/21 17:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	Filtration			201034	12/03/21 07:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201195	12/03/21 10:47	WBK6	ELLE
Dissolved	Analysis	6010D		1	201889	12/06/21 11:49	WJM9	ELLE
Total Recoverable	Prep	3005A			200944	12/02/21 20:15	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	201444	12/03/21 21:53	T8CQ	ELLE
Total Recoverable	Prep	3005A			200944	12/02/21 20:15	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	202452	12/07/21 12:51	WJM9	ELLE
Dissolved	Filtration	Filtration			201034	12/03/21 07:00	UDL9	ELLE
Dissolved	Prep	7470A			201029	12/03/21 07:59	UAMX	ELLE
Dissolved	Analysis	7470A		1	201286	12/03/21 14:36	UEFS	ELLE
Total/NA	Prep	7470A			200982	12/02/21 21:44	UAMX	ELLE
Total/NA	Analysis	7470A		1	201286	12/03/21 13:25	UEFS	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22

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Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
6010D	Metals (ICP)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65209-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-65209-1	GI-15P	Water	12/01/21 09:55	12/01/21 17:26
410-65209-2	GI-13P	Water	12/01/21 11:10	12/01/21 17:26
410-65209-3	PS-04P	Water	12/01/21 12:15	12/01/21 17:26
410-65209-4	PS-04AP	Water	12/01/21 13:35	12/01/21 17:26

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410-65209 Chain of Custody

Chain of Custody Record



TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Regulatory Program: DW NPDES RCRA Other: VADEP

Client Contact		Project Manager: <u>ASHLEY SWEENEY</u>		COC No: <u>1</u>							
Your Company Name here: <u>ROUX ASSOCIATES</u>		Email: <u>ASWEENEY@ROUXINC.COM</u>		Date: <u>12/11/2021</u>							
Address: <u>407 HAZARD DR</u>		Site Contact: <u>POIUY N</u>		TALS Project #:							
City/State/Zip: <u>LOGAN TWP. NJ 08085</u>		Tel/Fax:		Sampler:							
(xxx) xxx-xxxx Phone: <u>450-473 2X00</u>		Analysis Turnaround Time		For Lab Use Only:							
(xxx) xxx-xxxx FAX:		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		Walk-in Client:							
Project Name: <u>MUSEY - ALEXANDRIA</u>		TAT if different from Below		Lab Sampling:							
Site: <u>ALEXANDRIA, VA</u>		<input checked="" type="checkbox"/> 2 weeks		Job / SDG No.:							
P O #:		<input type="checkbox"/> 1 week		Sample Specific Notes:							
		<input type="checkbox"/> 2 days									
		<input type="checkbox"/> 1 day									
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TEL VOLUS	LAB QUALITY / TEL METALS	TEL PARTICULATE / TEL SVOC	DISPOSITIVE METALS / TEL METALS
G1-15P	12/11/21	9:55	G	GW	12			X	X	X	X
G1-13P	12/11/21	11:10	G	GW	12			X	X	X	X
PS-04P	12/11/21	12:15	G	GW	12			X	X	X	X
PS-04AP	12/11/21	13:35	G	GW	12			X	X	X	X
lab to fluid filter											
↓											
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.						<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown											
Special Instructions/QC Requirements & Comments:											
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: <u>5.9</u> Corr'd: <u>5.6</u>		Therm ID No.: <u>44750011108</u>					
Relinquished by: <u>[Signature]</u>		Company: <u>ROUX</u>		Date/Time: <u>12/11/21 14:30</u>		Received by: <u>[Signature]</u>		Company: <u>ELLE</u>		Date/Time: <u>12/11/21 15:31</u>	
Relinquished by: <u>[Signature]</u>		Company: <u>[Signature]</u>		Date/Time: <u>12/11/21 15:30</u>		Received by: <u>[Signature]</u>		Company: <u>ELLE</u>		Date/Time: <u>12/11/21 17:26</u>	
Relinquished by: <u>[Signature]</u>		Company: <u>[Signature]</u>		Date/Time: <u>12/11/21 15:30</u>		Received in laboratory by: <u>[Signature]</u>		Company: <u>ELLE</u>		Date/Time: <u>12/11/21 17:26</u>	



Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-65209-1

Login Number: 65209

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Renner, Melissa

Question	Answer	Comment
The cooler's custody seal is 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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
Sample custody seals are intact.	N/A	

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ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-65343-1
Client Project/Site: Mueser - Alexandria

For:
Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
12/14/2021 7:12:44 PM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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A handwritten signature in cursive script that reads "Kelly Tessier".

Kelly Tessier
Project Manager
12/14/2021 7:12:44 PM



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DRAFT

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
cn	Refer to Case Narrative for further detail
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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

DRAFT



Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

Job ID: 410-65343-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-65343-1

Receipt

The sample was received on 12/2/2021 5:56 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°C

Receipt Exceptions

A trip blank was not submitted for analysis with this sample shipment; and was not listed on the Chain of Custody (COC).

GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) analyzed on 410-202735 is compliant under 8260C/D method criteria for Tetrachloroethene. The software does not display the % Drift data to the whole number as is listed in the method (i.e. limit of 20%). When applying the evaluation to a whole number, the check passes the criteria with a value of 20% Drift.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-202735 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

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

GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) associated with batch 410-202772 recovered above the upper control limit for 2,2'-oxybis[1-chloropropane]. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

Pesticides

Method 8081B: The DCB Decachlorobiphenyl surrogate recovery for laboratory control sample duplicate (LCSD) associated with preparation batch 410-202747 and analytical batch 410-203188 was outside the lower control limits. The recoveries for the analytes of interest were within acceptable control limits. The data is reported.

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

Metals

Method 6010D: The following sample was not filtered within 15 minutes of sample collection as required by the method: PS-02P (410-65343-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 7470A: The following sample was not filtered within 15 minutes of sample collection as required by the method: PS-02P (410-65343-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 7470A: The following sample was not filtered within 15 minutes of sample collection as required by the method: PS-02P (410-65343-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

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

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

Client Sample ID: PS-02P

Lab Sample ID: 410-65343-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.14	J cn	0.47	0.095	ug/L	1		8270D	Total/NA
Aluminum	0.16	J	0.30	0.15	mg/L	1		6010D	Total Recoverable
Arsenic	0.020	J	0.050	0.016	mg/L	1		6010D	Total Recoverable
Barium	0.52		0.0050	0.0010	mg/L	1		6010D	Total Recoverable
Calcium	170		0.50	0.096	mg/L	1		6010D	Total Recoverable
Iron	39		0.20	0.040	mg/L	1		6010D	Total Recoverable
Lead	0.0083	J	0.015	0.0071	mg/L	1		6010D	Total Recoverable
Magnesium	23	^5-	0.10	0.040	mg/L	1		6010D	Total Recoverable
Manganese	0.43		0.010	0.0030	mg/L	1		6010D	Total Recoverable
Potassium	35		0.50	0.20	mg/L	1		6010D	Total Recoverable
Sodium	120		1.0	0.24	mg/L	1		6010D	Total Recoverable
Zinc	0.010	J	0.020	0.0037	mg/L	1		6010D	Total Recoverable
Barium	0.32		0.0052	0.0010	mg/L	1		6010D	Dissolved
Calcium	170		0.52	0.099	mg/L	1		6010D	Dissolved
Iron	3.9		0.21	0.041	mg/L	1		6010D	Dissolved
Magnesium	23	^5-	0.10	0.041	mg/L	1		6010D	Dissolved
Manganese	0.41		0.010	0.0031	mg/L	1		6010D	Dissolved
Potassium	34		0.52	0.21	mg/L	1		6010D	Dissolved
Sodium	120		1.0	0.25	mg/L	1		6010D	Dissolved
Mercury	0.087	J	0.20	0.079	ug/L	1		7470A	Total/NA

DRAFT

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

Client Sample ID: PS-02P

Lab Sample ID: 410-65343-1

Date Collected: 12/02/21 09:00

Matrix: Water

Date Received: 12/02/21 17:56

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/08/21 19:14	1
trans-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/08/21 19:14	1
Ethylbenzene	0.40	U cn	1.0	0.40	ug/L			12/08/21 19:14	1
Styrene	0.30	U cn	5.0	0.30	ug/L			12/08/21 19:14	1
1,4-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/08/21 19:14	1
1,2-Dibromoethane	0.20	U cn	1.0	0.20	ug/L			12/08/21 19:14	1
1,2-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
4-Methyl-2-pentanone	0.50	U cn	10	0.50	ug/L			12/08/21 19:14	1
Methylcyclohexane	0.50	U cn	5.0	0.50	ug/L			12/08/21 19:14	1
Toluene	0.20	U cn	1.0	0.20	ug/L			12/08/21 19:14	1
Chlorobenzene	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
Cyclohexane	1.0	U cn	5.0	1.0	ug/L			12/08/21 19:14	1
1,2,4-Trichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/08/21 19:14	1
1,4-Dioxane	29	U cn	250	29	ug/L			12/08/21 19:14	1
Dibromochloromethane	0.20	U cn	1.0	0.20	ug/L			12/08/21 19:14	1
Tetrachloroethene	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
cis-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
trans-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
Methyl tertiary butyl ether	0.20	U cn	1.0	0.20	ug/L			12/08/21 19:14	1
m&p-Xylene	2.0	U cn	5.0	2.0	ug/L			12/08/21 19:14	1
1,3-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/08/21 19:14	1
Carbon tetrachloride	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
2-Hexanone	0.40	U cn	10	0.40	ug/L			12/08/21 19:14	1
Acetone	0.70	U cn	20	0.70	ug/L			12/08/21 19:14	1
Chloroform	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
Benzene	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
1,1,1-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
Bromomethane	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
Chloromethane	0.20	U cn	1.0	0.20	ug/L			12/08/21 19:14	1
Bromochloromethane	0.20	U cn	5.0	0.20	ug/L			12/08/21 19:14	1
Chloroethane	0.20	U cn	1.0	0.20	ug/L			12/08/21 19:14	1
Vinyl chloride	0.20	U cn	1.0	0.20	ug/L			12/08/21 19:14	1
Methylene Chloride	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
Carbon disulfide	0.30	U cn	5.0	0.30	ug/L			12/08/21 19:14	1
Bromoform	1.0	U cn	4.0	1.0	ug/L			12/08/21 19:14	1
Bromodichloromethane	0.20	U cn	1.0	0.20	ug/L			12/08/21 19:14	1
1,1-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
1,1-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
Trichlorofluoromethane	0.20	U cn	1.0	0.20	ug/L			12/08/21 19:14	1
Dichlorodifluoromethane	0.20	U cn	1.0	0.20	ug/L			12/08/21 19:14	1
Freon 113	0.30	U cn	10	0.30	ug/L			12/08/21 19:14	1
1,2-Dichloropropane	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
2-Butanone	0.50	U cn	10	0.50	ug/L			12/08/21 19:14	1
1,1,2-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
Trichloroethene	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
Methyl acetate	0.30	U cn	5.0	0.30	ug/L			12/08/21 19:14	1
1,1,2,2-Tetrachloroethane	0.30	U cn	1.0	0.30	ug/L			12/08/21 19:14	1
1,2,3-Trichlorobenzene	0.40	U cn	5.0	0.40	ug/L			12/08/21 19:14	1
o-Xylene	0.40	U cn	1.0	0.40	ug/L			12/08/21 19:14	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

Client Sample ID: PS-02P

Lab Sample ID: 410-65343-1

Date Collected: 12/02/21 09:00

Matrix: Water

Date Received: 12/02/21 17:56

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	0.20	U cn	5.0	0.20	ug/L			12/08/21 19:14	1
1,2-Dibromo-3-Chloropropane	0.30	U cn	5.0	0.30	ug/L			12/08/21 19:14	1
Isopropylbenzene	0.20	U cn	5.0	0.20	ug/L			12/08/21 19:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108	cn	80 - 120					12/08/21 19:14	1
4-Bromofluorobenzene (Surr)	101	cn	80 - 120					12/08/21 19:14	1
Dibromofluoromethane (Surr)	101	cn	80 - 120					12/08/21 19:14	1
Toluene-d8 (Surr)	102	cn	80 - 120					12/08/21 19:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
1,2,4,5-Tetrachlorobenzene	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
2,2'-oxybis[1-chloropropane]	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
2,3,4,6-Tetrachlorophenol	0.95	U cn	4.7	0.95	ug/L		12/07/21 09:02	12/08/21 14:55	1
2,4,5-Trichlorophenol	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
2,4,6-Trichlorophenol	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
2,4-Dichlorophenol	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
2,4-Dimethylphenol	2.8	U cn	9.5	2.8	ug/L		12/07/21 09:02	12/08/21 14:55	1
2,4-Dinitrophenol	13	U cn	28	13	ug/L		12/07/21 09:02	12/08/21 14:55	1
2,4-Dinitrotoluene	0.95	U cn	4.7	0.95	ug/L		12/07/21 09:02	12/08/21 14:55	1
2,6-Dinitrotoluene	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
2-Chloronaphthalene	0.38	U cn	0.95	0.38	ug/L		12/07/21 09:02	12/08/21 14:55	1
2-Chlorophenol	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
2-Methylnaphthalene	0.095	U cn	0.47	0.095	ug/L		12/07/21 09:02	12/08/21 14:55	1
2-Methylphenol	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
2-Nitroaniline	0.95	U cn	4.7	0.95	ug/L		12/07/21 09:02	12/08/21 14:55	1
2-Nitrophenol	0.95	U cn	4.7	0.95	ug/L		12/07/21 09:02	12/08/21 14:55	1
3,3'-Dichlorobenzidine	3.8	U cn	9.5	3.8	ug/L		12/07/21 09:02	12/08/21 14:55	1
3-Nitroaniline	1.9	U cn	4.7	1.9	ug/L		12/07/21 09:02	12/08/21 14:55	1
4,6-Dinitro-2-methylphenol	7.6	U cn	20	7.6	ug/L		12/07/21 09:02	12/08/21 14:55	1
4-Bromophenyl-phenylether	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
4-Chloro-3-methylphenol	0.95	U cn	4.7	0.95	ug/L		12/07/21 09:02	12/08/21 14:55	1
4-Methylphenol	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
4-Nitroaniline	0.85	U cn	2.8	0.85	ug/L		12/07/21 09:02	12/08/21 14:55	1
4-Nitrophenol	9.5	U cn	28	9.5	ug/L		12/07/21 09:02	12/08/21 14:55	1
Acenaphthene	0.14	J cn	0.47	0.095	ug/L		12/07/21 09:02	12/08/21 14:55	1
Acenaphthylene	0.095	U cn	0.47	0.095	ug/L		12/07/21 09:02	12/08/21 14:55	1
Acetophenone	0.95	U cn	4.7	0.95	ug/L		12/07/21 09:02	12/08/21 14:55	1
Anthracene	0.095	U cn	0.47	0.095	ug/L		12/07/21 09:02	12/08/21 14:55	1
Atrazine	0.95	U cn	4.7	0.95	ug/L		12/07/21 09:02	12/08/21 14:55	1
Benzaldehyde	0.95	U cn	4.7	0.95	ug/L		12/07/21 09:02	12/08/21 14:55	1
Benzo[a]anthracene	0.095	U cn	0.47	0.095	ug/L		12/07/21 09:02	12/08/21 14:55	1
Benzo[a]pyrene	0.10	U cn	0.47	0.10	ug/L		12/07/21 09:02	12/08/21 14:55	1
Benzo[b]fluoranthene	0.095	U cn	0.47	0.095	ug/L		12/07/21 09:02	12/08/21 14:55	1
Benzo[g,h,i]perylene	0.095	U cn	0.47	0.095	ug/L		12/07/21 09:02	12/08/21 14:55	1
Benzo[k]fluoranthene	0.095	U cn	0.47	0.095	ug/L		12/07/21 09:02	12/08/21 14:55	1
Bis(2-chloroethoxy)methane	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
Bis(2-chloroethyl)ether	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

Client Sample ID: PS-02P

Lab Sample ID: 410-65343-1

Date Collected: 12/02/21 09:00

Matrix: Water

Date Received: 12/02/21 17:56

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.9	U cn	4.7	1.9	ug/L		12/07/21 09:02	12/08/21 14:55	1
Butylbenzylphthalate	1.9	U cn	4.7	1.9	ug/L		12/07/21 09:02	12/08/21 14:55	1
Caprolactam	2.8	U cn	6.6	2.8	ug/L		12/07/21 09:02	12/08/21 14:55	1
Carbazole	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
Chrysene	0.095	U cn	0.47	0.095	ug/L		12/07/21 09:02	12/08/21 14:55	1
Di-n-butyl phthalate	1.9	U cn	4.7	1.9	ug/L		12/07/21 09:02	12/08/21 14:55	1
Di-n-octyl phthalate	4.7	U cn	10	4.7	ug/L		12/07/21 09:02	12/08/21 14:55	1
Dibenz(a,h)anthracene	0.095	U cn	0.47	0.095	ug/L		12/07/21 09:02	12/08/21 14:55	1
Dibenzofuran	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
Diethyl phthalate	1.9	U cn	4.7	1.9	ug/L		12/07/21 09:02	12/08/21 14:55	1
Dimethyl phthalate	1.9	U cn	4.7	1.9	ug/L		12/07/21 09:02	12/08/21 14:55	1
Fluoranthene	0.095	U cn	0.47	0.095	ug/L		12/07/21 09:02	12/08/21 14:55	1
Fluorene	0.11	U cn	0.47	0.11	ug/L		12/07/21 09:02	12/08/21 14:55	1
Hexachlorobenzene	0.10	U cn	0.47	0.10	ug/L		12/07/21 09:02	12/08/21 14:55	1
Hexachlorobutadiene	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
Hexachlorocyclopentadiene	4.7	U cn	10	4.7	ug/L		12/07/21 09:02	12/08/21 14:55	1
Hexachloroethane	0.47	U cn	4.7	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
Indeno[1,2,3-cd]pyrene	0.10	U cn	0.47	0.10	ug/L		12/07/21 09:02	12/08/21 14:55	1
Isophorone	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
N-Nitrosodi-n-propylamine	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
N-Nitrosodiphenylamine	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
Naphthalene	0.095	U cn	0.47	0.095	ug/L		12/07/21 09:02	12/08/21 14:55	1
Nitrobenzene	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
Phenanthrene	0.10	U cn	0.47	0.10	ug/L		12/07/21 09:02	12/08/21 14:55	1
Phenol	0.47	U cn	1.9	0.47	ug/L		12/07/21 09:02	12/08/21 14:55	1
Pyrene	0.095	U cn	0.47	0.095	ug/L		12/07/21 09:02	12/08/21 14:55	1
Pentachlorophenol	0.95	U cn	4.7	0.95	ug/L		12/07/21 09:02	12/08/21 14:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	67	cn	31 - 119	12/07/21 09:02	12/08/21 14:55	1
Nitrobenzene-d5 (Surr)	75	cn	22 - 117	12/07/21 09:02	12/08/21 14:55	1
2-Fluorophenol (Surr)	49	cn	10 - 78	12/07/21 09:02	12/08/21 14:55	1
2-Fluorobiphenyl (Surr)	79	cn	35 - 100	12/07/21 09:02	12/08/21 14:55	1
2,4,6-Tribromophenol (Surr)	84	cn	10 - 150	12/07/21 09:02	12/08/21 14:55	1
Phenol-d5 (Surr)	46	cn	10 - 67	12/07/21 09:02	12/08/21 14:55	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	0.0097	U *1 cn	0.097	0.0097	ug/L		12/08/21 08:43	12/09/21 10:08	5
alpha-BHC (1C)	0.015	U *1 cn	0.097	0.015	ug/L		12/08/21 08:43	12/09/21 10:08	5
alpha-Chlordane (1C)	0.015	U *1 cn	0.097	0.015	ug/L		12/08/21 08:43	12/09/21 10:08	5
beta-BHC (1C)	0.016	U cn	0.097	0.016	ug/L		12/08/21 08:43	12/09/21 10:08	5
delta-BHC (1C)	0.016	U *1 cn	0.097	0.016	ug/L		12/08/21 08:43	12/09/21 10:08	5
Dieldrin (1C)	0.026	U *1 cn	0.15	0.026	ug/L		12/08/21 08:43	12/09/21 10:08	5
Endosulfan I (1C)	0.021	U *1 cn	0.097	0.021	ug/L		12/08/21 08:43	12/09/21 10:08	5
Endosulfan II (1C)	0.073	U *1 cn	0.19	0.073	ug/L		12/08/21 08:43	12/09/21 10:08	5
Endosulfan sulfate (1C)	0.028	U cn	0.15	0.028	ug/L		12/08/21 08:43	12/09/21 10:08	5
Endrin (1C)	0.039	U *1 cn	0.15	0.039	ug/L		12/08/21 08:43	12/09/21 10:08	5
Endrin aldehyde (1C)	0.097	U *1 cn	0.48	0.097	ug/L		12/08/21 08:43	12/09/21 10:08	5
Endrin ketone (1C)	0.024	U *1 cn	0.15	0.024	ug/L		12/08/21 08:43	12/09/21 10:08	5

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

Client Sample ID: PS-02P

Lab Sample ID: 410-65343-1

Date Collected: 12/02/21 09:00

Matrix: Water

Date Received: 12/02/21 17:56

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane) (1C)	0.0097	U *1 cn	0.097	0.0097	ug/L		12/08/21 08:43	12/09/21 10:08	5
gamma-Chlordane (1C)	0.034	U *1 cn	0.19	0.034	ug/L		12/08/21 08:43	12/09/21 10:08	5
Heptachlor (1C)	0.0097	U cn	0.097	0.0097	ug/L		12/08/21 08:43	12/09/21 10:08	5
Heptachlor epoxide (1C)	0.011	U *1 cn	0.097	0.011	ug/L		12/08/21 08:43	12/09/21 10:08	5
Methoxychlor (1C)	0.15	U cn	0.53	0.15	ug/L		12/08/21 08:43	12/09/21 10:08	5
Toxaphene (1C)	1.5	U cn	4.8	1.5	ug/L		12/08/21 08:43	12/09/21 10:08	5
p,p'-DDD (1C)	0.024	U *1 cn	0.15	0.024	ug/L		12/08/21 08:43	12/09/21 10:08	5
p,p'-DDE (1C)	0.024	U *1 cn	0.15	0.024	ug/L		12/08/21 08:43	12/09/21 10:08	5
p,p'-DDT (1C)	0.025	U *1 cn	0.15	0.025	ug/L		12/08/21 08:43	12/09/21 10:08	5

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	27	cn	20 - 149				12/08/21 08:43	12/09/21 10:08	5
DCB Decachlorobiphenyl (Surr) (2C)	23	cn	20 - 149				12/08/21 08:43	12/09/21 10:08	5
Tetrachloro-m-xylene (Surr) (1C)	75	cn	20 - 129				12/08/21 08:43	12/09/21 10:08	5
Tetrachloro-m-xylene (Surr) (2C)	60	cn	20 - 129				12/08/21 08:43	12/09/21 10:08	5

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.050	0.016	mg/L		12/05/21 10:19	12/10/21 21:53	1
Aluminum	0.16	J	0.30	0.15	mg/L		12/05/21 10:19	12/10/21 12:17	1
Arsenic	0.020	J	0.050	0.016	mg/L		12/05/21 10:19	12/10/21 12:17	1
Barium	0.52		0.0050	0.0010	mg/L		12/05/21 10:19	12/10/21 12:17	1
Beryllium	0.0010	U	0.0050	0.0010	mg/L		12/05/21 10:19	12/10/21 12:17	1
Cadmium	0.0010	U	0.0050	0.0010	mg/L		12/05/21 10:19	12/10/21 12:17	1
Calcium	170		0.50	0.096	mg/L		12/05/21 10:19	12/10/21 12:17	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/05/21 10:19	12/10/21 12:17	1
Cobalt	0.0015	U	0.0050	0.0015	mg/L		12/05/21 10:19	12/10/21 12:17	1
Copper	0.012	U	0.020	0.012	mg/L		12/05/21 10:19	12/10/21 12:17	1
Iron	39		0.20	0.040	mg/L		12/05/21 10:19	12/10/21 12:17	1
Lead	0.0083	J	0.015	0.0071	mg/L		12/05/21 10:19	12/10/21 21:53	1
Magnesium	23	^5-	0.10	0.040	mg/L		12/05/21 10:19	12/10/21 12:17	1
Manganese	0.43		0.010	0.0030	mg/L		12/05/21 10:19	12/10/21 12:17	1
Nickel	0.0021	U	0.010	0.0021	mg/L		12/05/21 10:19	12/10/21 12:17	1
Potassium	35		0.50	0.20	mg/L		12/05/21 10:19	12/10/21 21:53	1
Selenium	0.016	U	0.050	0.016	mg/L		12/05/21 10:19	12/10/21 12:17	1
Silver	0.0050	U ^5-	0.010	0.0050	mg/L		12/05/21 10:19	12/10/21 12:17	1
Sodium	120		1.0	0.24	mg/L		12/05/21 10:19	12/10/21 12:17	1
Thallium	0.0081	U	0.030	0.0081	mg/L		12/05/21 10:19	12/10/21 12:17	1
Zinc	0.010	J	0.020	0.0037	mg/L		12/05/21 10:19	12/10/21 12:17	1
Vanadium	0.0019	U	0.010	0.0019	mg/L		12/05/21 10:19	12/10/21 12:17	1

Method: 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 12:37	1
Aluminum	0.16	U	0.31	0.16	mg/L		12/03/21 10:47	12/06/21 12:37	1
Arsenic	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 12:37	1
Barium	0.32		0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 12:37	1
Beryllium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 12:37	1
Cadmium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 12:37	1
Calcium	170		0.52	0.099	mg/L		12/03/21 10:47	12/06/21 12:37	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

Client Sample ID: PS-02P

Lab Sample ID: 410-65343-1

Date Collected: 12/02/21 09:00

Matrix: Water

Date Received: 12/02/21 17:56

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.0016	U	0.015	0.0016	mg/L		12/03/21 10:47	12/06/21 12:37	1
Cobalt	0.0015	U	0.0052	0.0015	mg/L		12/03/21 10:47	12/06/21 12:37	1
Copper	0.012	U	0.021	0.012	mg/L		12/03/21 10:47	12/06/21 12:37	1
Iron	3.9		0.21	0.041	mg/L		12/03/21 10:47	12/06/21 12:37	1
Lead	0.0073	U ^3+	0.015	0.0073	mg/L		12/03/21 10:47	12/06/21 12:37	1
Magnesium	23	^5-	0.10	0.041	mg/L		12/03/21 10:47	12/06/21 12:37	1
Manganese	0.41		0.010	0.0031	mg/L		12/03/21 10:47	12/06/21 12:37	1
Nickel	0.0022	U	0.010	0.0022	mg/L		12/03/21 10:47	12/06/21 12:37	1
Potassium	34		0.52	0.21	mg/L		12/03/21 10:47	12/07/21 10:40	1
Selenium	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 12:37	1
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/03/21 10:47	12/06/21 12:37	1
Sodium	120		1.0	0.25	mg/L		12/03/21 10:47	12/06/21 12:37	1
Thallium	0.0083	U	0.031	0.0083	mg/L		12/03/21 10:47	12/06/21 12:37	1
Zinc	0.0038	U	0.021	0.0038	mg/L		12/03/21 10:47	12/06/21 12:37	1
Vanadium	0.0020	U	0.010	0.0020	mg/L		12/03/21 10:47	12/06/21 12:37	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.087	J	0.20	0.079	ug/L		12/03/21 06:31	12/03/21 14:12	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/03/21 07:59	12/03/21 14:38	1

DRAFT

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-65343-1	PS-02P	108 cn	101 cn	101 cn	102 cn
LCS 410-202735/5	Lab Control Sample	106	102	99	103
LCS 410-202735/6	Lab Control Sample	105	103	99	103
MB 410-202735/8	Method Blank	108	102	100	104

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (31-119)	NBZ (22-117)	2FP (10-78)	FBP (35-100)	TBP (10-150)	PHL (10-67)
410-65343-1	PS-02P	67 cn	75 cn	49 cn	79 cn	84 cn	46 cn
LCS 410-202231/2-A	Lab Control Sample	83	69	49	76	82	38
LCSD 410-202231/3-A	Lab Control Sample Dup	80	74	50	81	87	39
MB 410-202231/1-A	Method Blank	87	76	44	81	87	32

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (20-149)	DCB2 (20-149)	TCX1 (20-129)	TCX2 (20-129)
410-65343-1	PS-02P	27 cn	23 cn	75 cn	60 cn
LCS 410-202747/2-A	Lab Control Sample	87	80	82	72
LCSD 410-202747/3-A	Lab Control Sample Dup	12 S1-	11 S1-	56	51
MB 410-202747/1-A	Method Blank	85	80	85	75

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

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

Lab Sample ID: MB 410-202735/8

Matrix: Water

Analysis Batch: 202735

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			12/08/21 11:46	1
trans-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			12/08/21 11:46	1
Ethylbenzene	0.40	U	1.0	0.40	ug/L			12/08/21 11:46	1
Styrene	0.30	U	5.0	0.30	ug/L			12/08/21 11:46	1
1,4-Dichlorobenzene	0.30	U	5.0	0.30	ug/L			12/08/21 11:46	1
1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L			12/08/21 11:46	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
4-Methyl-2-pentanone	0.50	U	10	0.50	ug/L			12/08/21 11:46	1
Methylcyclohexane	0.50	U	5.0	0.50	ug/L			12/08/21 11:46	1
Toluene	0.20	U	1.0	0.20	ug/L			12/08/21 11:46	1
Chlorobenzene	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
Cyclohexane	1.0	U	5.0	1.0	ug/L			12/08/21 11:46	1
1,2,4-Trichlorobenzene	0.30	U	5.0	0.30	ug/L			12/08/21 11:46	1
1,4-Dioxane	29	U	250	29	ug/L			12/08/21 11:46	1
Dibromochloromethane	0.20	U	1.0	0.20	ug/L			12/08/21 11:46	1
Tetrachloroethene	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
cis-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
trans-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
Methyl tertiary butyl ether	0.20	U	1.0	0.20	ug/L			12/08/21 11:46	1
m&p-Xylene	2.0	U	5.0	2.0	ug/L			12/08/21 11:46	1
1,3-Dichlorobenzene	0.30	U	5.0	0.30	ug/L			12/08/21 11:46	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
2-Hexanone	0.40	U	10	0.40	ug/L			12/08/21 11:46	1
Acetone	0.70	U	20	0.70	ug/L			12/08/21 11:46	1
Chloroform	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
Benzene	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
1,1,1-Trichloroethane	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
Bromomethane	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
Chloromethane	0.20	U	1.0	0.20	ug/L			12/08/21 11:46	1
Bromochloromethane	0.20	U	5.0	0.20	ug/L			12/08/21 11:46	1
Chloroethane	0.20	U	1.0	0.20	ug/L			12/08/21 11:46	1
Vinyl chloride	0.20	U	1.0	0.20	ug/L			12/08/21 11:46	1
Methylene Chloride	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
Carbon disulfide	0.30	U	5.0	0.30	ug/L			12/08/21 11:46	1
Bromoform	1.0	U	4.0	1.0	ug/L			12/08/21 11:46	1
Bromodichloromethane	0.20	U	1.0	0.20	ug/L			12/08/21 11:46	1
1,1-Dichloroethane	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
1,1-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
Trichlorofluoromethane	0.20	U	1.0	0.20	ug/L			12/08/21 11:46	1
Dichlorodifluoromethane	0.20	U	1.0	0.20	ug/L			12/08/21 11:46	1
Freon 113	0.30	U	10	0.30	ug/L			12/08/21 11:46	1
1,2-Dichloropropane	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
2-Butanone	0.50	U	10	0.50	ug/L			12/08/21 11:46	1
1,1,2-Trichloroethane	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
Trichloroethene	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
Methyl acetate	0.30	U	5.0	0.30	ug/L			12/08/21 11:46	1
1,1,1,2,2-Tetrachloroethane	0.30	U	1.0	0.30	ug/L			12/08/21 11:46	1
1,2,3-Trichlorobenzene	0.40	U	5.0	0.40	ug/L			12/08/21 11:46	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

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

Lab Sample ID: MB 410-202735/8

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 202735

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	0.40	U	1.0	0.40	ug/L			12/08/21 11:46	1
1,2-Dichlorobenzene	0.20	U	5.0	0.20	ug/L			12/08/21 11:46	1
1,2-Dibromo-3-Chloropropane	0.30	U	5.0	0.30	ug/L			12/08/21 11:46	1
Isopropylbenzene	0.20	U	5.0	0.20	ug/L			12/08/21 11:46	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	108		80 - 120		12/08/21 11:46	1
4-Bromofluorobenzene (Surr)	102		80 - 120		12/08/21 11:46	1
Dibromofluoromethane (Surr)	100		80 - 120		12/08/21 11:46	1
Toluene-d8 (Surr)	104		80 - 120		12/08/21 11:46	1

Lab Sample ID: LCS 410-202735/5

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 202735

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,3-Dichloropropene	20.0	20.1		ug/L		100	75 - 120
trans-1,3-Dichloropropene	20.0	21.2		ug/L		106	67 - 120
Ethylbenzene	20.0	22.1		ug/L		111	80 - 120
Styrene	20.0	22.4		ug/L		112	80 - 120
1,4-Dichlorobenzene	20.0	23.3		ug/L		117	80 - 120
1,2-Dibromoethane	20.0	21.0		ug/L		105	77 - 120
1,2-Dichloroethane	20.0	20.1		ug/L		101	73 - 124
4-Methyl-2-pentanone	250	267		ug/L		107	62 - 133
Methylcyclohexane	20.0	22.5		ug/L		113	67 - 121
Toluene	20.0	21.7		ug/L		109	80 - 120
Chlorobenzene	20.0	21.9		ug/L		110	80 - 120
Cyclohexane	20.0	21.0		ug/L		105	68 - 126
1,2,4-Trichlorobenzene	20.0	23.9		ug/L		120	63 - 120
1,4-Dioxane	500	719		ug/L		144	63 - 146
Dibromochloromethane	20.0	20.7		ug/L		103	71 - 120
Tetrachloroethene	20.0	23.0		ug/L		115	80 - 120
cis-1,2-Dichloroethene	20.0	21.4		ug/L		107	80 - 125
trans-1,2-Dichloroethene	20.0	20.5		ug/L		103	80 - 126
Methyl tertiary butyl ether	20.0	19.8		ug/L		99	69 - 122
m&p-Xylene	40.0	45.2		ug/L		113	80 - 120
1,3-Dichlorobenzene	20.0	23.0		ug/L		115	80 - 120
Carbon tetrachloride	20.0	21.4		ug/L		107	64 - 134
2-Hexanone	250	286		ug/L		114	56 - 135
Acetone	250	262		ug/L		105	54 - 157
Chloroform	20.0	20.9		ug/L		104	80 - 120
Benzene	20.0	20.8		ug/L		104	80 - 120
1,1,1-Trichloroethane	20.0	20.7		ug/L		103	67 - 126
Bromomethane	20.0	17.4		ug/L		87	53 - 128
Chloromethane	20.0	19.7		ug/L		99	56 - 121
Bromochloromethane	20.0	21.7		ug/L		108	80 - 120
Chloroethane	20.0	19.7		ug/L		98	55 - 123
Vinyl chloride	20.0	19.3		ug/L		97	56 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

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

Lab Sample ID: LCS 410-202735/5

Matrix: Water

Analysis Batch: 202735

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	20.6		ug/L		103	80 - 120
Carbon disulfide	20.0	19.0		ug/L		95	65 - 128
Bromoform	20.0	21.9		ug/L		109	51 - 120
Bromodichloromethane	20.0	20.5		ug/L		102	71 - 120
1,1-Dichloroethane	20.0	20.0		ug/L		100	80 - 120
1,1-Dichloroethene	20.0	21.1		ug/L		106	80 - 131
Trichlorofluoromethane	20.0	20.6		ug/L		103	55 - 135
Dichlorodifluoromethane	20.0	21.7		ug/L		109	41 - 127
Freon 113	20.0	21.3		ug/L		107	73 - 139
1,2-Dichloropropane	20.0	20.4		ug/L		102	80 - 120
2-Butanone	250	265		ug/L		106	59 - 135
1,1,2-Trichloroethane	20.0	21.6		ug/L		108	80 - 120
Trichloroethene	20.0	21.0		ug/L		105	80 - 120
Methyl acetate	20.0	23.9		ug/L		119	54 - 136
1,1,1,2-Tetrachloroethane	20.0	21.6		ug/L		108	72 - 120
1,2,3-Trichlorobenzene	20.0	24.0		ug/L		120	66 - 120
o-Xylene	20.0	21.7		ug/L		109	80 - 120
1,2-Dichlorobenzene	20.0	22.7		ug/L		113	80 - 120
1,2-Dibromo-3-Chloropropane	20.0	20.0		ug/L		100	47 - 131
Isopropylbenzene	20.0	23.1		ug/L		116	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		80 - 120
4-Bromofluorobenzene (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	99		80 - 120
Toluene-d8 (Surr)	103		80 - 120

Lab Sample ID: LCS 410-202735/6

Matrix: Water

Analysis Batch: 202735

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		80 - 120
4-Bromofluorobenzene (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	99		80 - 120
Toluene-d8 (Surr)	103		80 - 120

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

Lab Sample ID: MB 410-202231/1-A

Matrix: Water

Analysis Batch: 202296

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 202231

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
1,2,4,5-Tetrachlorobenzene	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
2,2'-oxybis[1-chloropropane]	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
2,3,4,6-Tetrachlorophenol	1.0	U	5.0	1.0	ug/L		12/07/21 09:02	12/07/21 19:19	1

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

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

Lab Sample ID: MB 410-202231/1-A

Matrix: Water

Analysis Batch: 202296

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 202231

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,4,5-Trichlorophenol	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
2,4,6-Trichlorophenol	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
2,4-Dichlorophenol	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
2,4-Dimethylphenol	3.0	U	10	3.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
2,4-Dinitrophenol	14	U	30	14	ug/L		12/07/21 09:02	12/07/21 19:19	1
2,4-Dinitrotoluene	1.0	U	5.0	1.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
2,6-Dinitrotoluene	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
2-Chloronaphthalene	0.40	U	1.0	0.40	ug/L		12/07/21 09:02	12/07/21 19:19	1
2-Chlorophenol	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
2-Methylnaphthalene	0.10	U	0.50	0.10	ug/L		12/07/21 09:02	12/07/21 19:19	1
2-Methylphenol	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
2-Nitroaniline	1.0	U	5.0	1.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
2-Nitrophenol	1.0	U	5.0	1.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
3,3'-Dichlorobenzidine	4.0	U	10	4.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
3-Nitroaniline	2.0	U	5.0	2.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
4,6-Dinitro-2-methylphenol	8.0	U	21	8.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
4-Bromophenyl-phenylether	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
4-Chloro-3-methylphenol	1.0	U	5.0	1.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
4-Methylphenol	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
4-Nitroaniline	0.90	U	3.0	0.90	ug/L		12/07/21 09:02	12/07/21 19:19	1
4-Nitrophenol	10	U	30	10	ug/L		12/07/21 09:02	12/07/21 19:19	1
Acenaphthene	0.10	U	0.50	0.10	ug/L		12/07/21 09:02	12/07/21 19:19	1
Acenaphthylene	0.10	U	0.50	0.10	ug/L		12/07/21 09:02	12/07/21 19:19	1
Acetophenone	1.0	U	5.0	1.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
Anthracene	0.10	U	0.50	0.10	ug/L		12/07/21 09:02	12/07/21 19:19	1
Atrazine	1.0	U	5.0	1.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
Benzaldehyde	1.0	U	5.0	1.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
Benzo[a]anthracene	0.10	U	0.50	0.10	ug/L		12/07/21 09:02	12/07/21 19:19	1
Benzo[a]pyrene	0.11	U	0.50	0.11	ug/L		12/07/21 09:02	12/07/21 19:19	1
Benzo[b]fluoranthene	0.10	U	0.50	0.10	ug/L		12/07/21 09:02	12/07/21 19:19	1
Benzo[g,h,i]perylene	0.10	U	0.50	0.10	ug/L		12/07/21 09:02	12/07/21 19:19	1
Benzo[k]fluoranthene	0.10	U	0.50	0.10	ug/L		12/07/21 09:02	12/07/21 19:19	1
Bis(2-chloroethoxy)methane	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
Bis(2-chloroethyl)ether	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
Bis(2-ethylhexyl) phthalate	2.0	U	5.0	2.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
Butylbenzylphthalate	2.0	U	5.0	2.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
Caprolactam	3.0	U	7.0	3.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
Carbazole	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
Chrysene	0.10	U	0.50	0.10	ug/L		12/07/21 09:02	12/07/21 19:19	1
Di-n-butyl phthalate	2.0	U	5.0	2.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
Di-n-octyl phthalate	5.0	U	11	5.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
Dibenz(a,h)anthracene	0.10	U	0.50	0.10	ug/L		12/07/21 09:02	12/07/21 19:19	1
Dibenzofuran	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
Diethyl phthalate	2.0	U	5.0	2.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
Dimethyl phthalate	2.0	U	5.0	2.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
Fluoranthene	0.10	U	0.50	0.10	ug/L		12/07/21 09:02	12/07/21 19:19	1
Fluorene	0.12	U	0.50	0.12	ug/L		12/07/21 09:02	12/07/21 19:19	1
Hexachlorobenzene	0.11	U	0.50	0.11	ug/L		12/07/21 09:02	12/07/21 19:19	1
Hexachlorobutadiene	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

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

Lab Sample ID: MB 410-202231/1-A

Matrix: Water

Analysis Batch: 202296

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 202231

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hexachlorocyclopentadiene	5.0	U	11	5.0	ug/L		12/07/21 09:02	12/07/21 19:19	1
Hexachloroethane	0.50	U	5.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
Indeno[1,2,3-cd]pyrene	0.11	U	0.50	0.11	ug/L		12/07/21 09:02	12/07/21 19:19	1
Isophorone	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
N-Nitrosodi-n-propylamine	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
N-Nitrosodiphenylamine	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
Naphthalene	0.10	U	0.50	0.10	ug/L		12/07/21 09:02	12/07/21 19:19	1
Nitrobenzene	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
Phenanthrene	0.11	U	0.50	0.11	ug/L		12/07/21 09:02	12/07/21 19:19	1
Phenol	0.50	U	2.0	0.50	ug/L		12/07/21 09:02	12/07/21 19:19	1
Pyrene	0.10	U	0.50	0.10	ug/L		12/07/21 09:02	12/07/21 19:19	1
Pentachlorophenol	1.0	U	5.0	1.0	ug/L		12/07/21 09:02	12/07/21 19:19	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
p-Terphenyl-d14 (Surr)	87		31 - 119	12/07/21 09:02	12/07/21 19:19	1
Nitrobenzene-d5 (Surr)	76		22 - 117	12/07/21 09:02	12/07/21 19:19	1
2-Fluorophenol (Surr)	44		10 - 78	12/07/21 09:02	12/07/21 19:19	1
2-Fluorobiphenyl (Surr)	81		35 - 100	12/07/21 09:02	12/07/21 19:19	1
2,4,6-Tribromophenol (Surr)	87		10 - 150	12/07/21 09:02	12/07/21 19:19	1
Phenol-d5 (Surr)	32		10 - 67	12/07/21 09:02	12/07/21 19:19	1

Lab Sample ID: LCS 410-202231/2-A

Matrix: Water

Analysis Batch: 202296

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 202231

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	50.0	35.5		ug/L		71	39 - 120
2,2'-oxybis[1-chloropropane]	50.0	48.9		ug/L		98	48 - 120
2,3,4,6-Tetrachlorophenol	50.0	42.3		ug/L		85	65 - 123
2,4,5-Trichlorophenol	50.0	44.5		ug/L		89	66 - 120
2,4,6-Trichlorophenol	50.0	43.9		ug/L		88	63 - 120
2,4-Dichlorophenol	50.0	40.0		ug/L		80	64 - 120
2,4-Dimethylphenol	50.0	37.1		ug/L		74	64 - 107
2,4-Dinitrophenol	100	84.1		ug/L		84	33 - 132
2,4-Dinitrotoluene	50.0	40.4		ug/L		81	71 - 120
2,6-Dinitrotoluene	50.0	42.8		ug/L		86	72 - 120
2-Chloronaphthalene	50.0	37.2		ug/L		74	51 - 120
2-Chlorophenol	50.0	37.6		ug/L		75	57 - 120
2-Methylnaphthalene	50.0	35.5		ug/L		71	53 - 120
2-Methylphenol	50.0	33.3		ug/L		67	51 - 120
2-Nitroaniline	50.0	43.2		ug/L		86	67 - 120
2-Nitrophenol	50.0	40.1		ug/L		80	59 - 120
3,3'-Dichlorobenzidine	100	73.0		ug/L		73	42 - 107
3-Nitroaniline	50.0	37.8		ug/L		76	52 - 120
4,6-Dinitro-2-methylphenol	100	86.0		ug/L		86	53 - 123
4-Bromophenyl-phenylether	50.0	40.2		ug/L		80	66 - 120
4-Chloro-3-methylphenol	50.0	38.7		ug/L		77	60 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

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

Lab Sample ID: LCS 410-202231/2-A

Matrix: Water

Analysis Batch: 202296

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 202231

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
4-Methylphenol	50.0	32.8		ug/L		66	44 - 120
4-Nitroaniline	50.0	39.7		ug/L		79	60 - 120
4-Nitrophenol	100	51.8		ug/L		52	19 - 120
Acenaphthene	50.0	39.6		ug/L		79	59 - 120
Acenaphthylene	50.0	40.6		ug/L		81	63 - 121
Acetophenone	50.0	36.7		ug/L		73	62 - 120
Anthracene	50.0	40.3		ug/L		81	73 - 120
Atrazine	50.0	46.2		ug/L		92	66 - 122
Benzaldehyde	50.0	40.5		ug/L		81	45 - 120
Benzo[a]anthracene	50.0	47.0		ug/L		94	74 - 120
Benzo[a]pyrene	50.0	41.4		ug/L		83	60 - 116
Benzo[b]fluoranthene	50.0	45.5		ug/L		91	71 - 120
Benzo[g,h,i]perylene	50.0	41.8		ug/L		84	60 - 120
Benzo[k]fluoranthene	50.0	46.2		ug/L		92	78 - 120
Bis(2-chloroethoxy)methane	50.0	39.8		ug/L		80	62 - 120
Bis(2-chloroethyl)ether	50.0	37.8		ug/L		76	62 - 120
Bis(2-ethylhexyl) phthalate	50.0	45.8		ug/L		92	60 - 120
Butylbenzylphthalate	50.0	37.3		ug/L		75	11 - 125
Caprolactam	50.0	10.7		ug/L		21	12 - 120
Carbazole	50.0	40.8		ug/L		82	74 - 120
Chrysene	50.0	43.6		ug/L		87	76 - 120
Di-n-butyl phthalate	50.0	41.1		ug/L		82	53 - 120
Di-n-octyl phthalate	50.0	47.2		ug/L		94	59 - 120
Dibenz(a,h)anthracene	50.0	38.8		ug/L		78	62 - 120
Dibenzofuran	50.0	39.5		ug/L		79	60 - 112
Diethyl phthalate	50.0	39.1		ug/L		78	27 - 120
Dimethyl phthalate	50.0	32.9		ug/L		66	10 - 124
Fluoranthene	50.0	43.0		ug/L		86	74 - 120
Fluorene	50.0	40.8		ug/L		82	64 - 120
Hexachlorobenzene	50.0	42.5		ug/L		85	65 - 120
Hexachlorobutadiene	50.0	29.0		ug/L		58	24 - 120
Hexachlorocyclopentadiene	50.0	10.9	J	ug/L		22	10 - 120
Hexachloroethane	50.0	26.9		ug/L		54	22 - 120
Indeno[1,2,3-cd]pyrene	50.0	39.6		ug/L		79	52 - 121
Isophorone	50.0	37.8		ug/L		76	70 - 120
N-Nitrosodi-n-propylamine	50.0	37.4		ug/L		75	63 - 120
N-Nitrosodiphenylamine	42.5	36.8		ug/L		87	72 - 120
Naphthalene	50.0	36.0		ug/L		72	51 - 102
Nitrobenzene	50.0	37.5		ug/L		75	59 - 120
Phenanthrene	50.0	40.0		ug/L		80	72 - 120
Phenol	50.0	19.5		ug/L		39	22 - 120
Pyrene	50.0	41.9		ug/L		84	73 - 120
Pentachlorophenol	100	82.4		ug/L		82	48 - 123

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
p-Terphenyl-d14 (Surr)	83		31 - 119
Nitrobenzene-d5 (Surr)	69		22 - 117
2-Fluorophenol (Surr)	49		10 - 78

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

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

Lab Sample ID: LCS 410-202231/2-A

Matrix: Water

Analysis Batch: 202296

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 202231

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	76		35 - 100
2,4,6-Tribromophenol (Surr)	82		10 - 150
Phenol-d5 (Surr)	38		10 - 67

Lab Sample ID: LCSD 410-202231/3-A

Matrix: Water

Analysis Batch: 202296

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 202231

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	50.0	40.9		ug/L		82	53 - 120	8	30
1,2,4,5-Tetrachlorobenzene	50.0	38.2		ug/L		76	39 - 120	7	30
2,2'-oxybis[1-chloropropane]	50.0	52.6		ug/L		105	48 - 120	7	30
2,3,4,6-Tetrachlorophenol	50.0	44.2		ug/L		88	65 - 123	5	30
2,4,5-Trichlorophenol	50.0	47.0		ug/L		94	66 - 120	6	30
2,4,6-Trichlorophenol	50.0	46.0		ug/L		92	63 - 120	5	30
2,4-Dichlorophenol	50.0	42.0		ug/L		84	64 - 120	5	30
2,4-Dimethylphenol	50.0	38.9		ug/L		78	64 - 107	5	30
2,4-Dinitrophenol	100	90.2		ug/L		90	33 - 132	7	30
2,4-Dinitrotoluene	50.0	43.9		ug/L		88	71 - 120	8	30
2,6-Dinitrotoluene	50.0	47.1		ug/L		94	72 - 120	9	30
2-Chloronaphthalene	50.0	40.3		ug/L		81	51 - 120	8	30
2-Chlorophenol	50.0	39.9		ug/L		80	57 - 120	6	30
2-Methylnaphthalene	50.0	37.4		ug/L		75	53 - 120	5	30
2-Methylphenol	50.0	34.4		ug/L		69	51 - 120	3	30
2-Nitroaniline	50.0	46.9		ug/L		94	67 - 120	8	30
2-Nitrophenol	50.0	42.3		ug/L		85	59 - 120	5	30
3,3'-Dichlorobenzidine	100	78.9		ug/L		79	42 - 107	8	30
3-Nitroaniline	50.0	38.9		ug/L		78	52 - 120	3	30
4,6-Dinitro-2-methylphenol	100	91.6		ug/L		92	53 - 123	6	30
4-Bromophenyl-phenylether	50.0	42.7		ug/L		85	66 - 120	6	30
4-Chloro-3-methylphenol	50.0	40.0		ug/L		80	60 - 120	3	30
4-Methylphenol	50.0	33.2		ug/L		66	44 - 120	1	30
4-Nitroaniline	50.0	41.5		ug/L		83	60 - 120	4	30
4-Nitrophenol	100	53.7		ug/L		54	19 - 120	4	30
Acenaphthene	50.0	42.7		ug/L		85	59 - 120	7	30
Acenaphthylene	50.0	43.9		ug/L		88	63 - 121	8	30
Acetophenone	50.0	38.8		ug/L		78	62 - 120	5	30
Anthracene	50.0	42.7		ug/L		85	73 - 120	6	30
Atrazine	50.0	50.3		ug/L		101	66 - 122	9	30
Benzaldehyde	50.0	42.5		ug/L		85	45 - 120	5	30
Benzo[a]anthracene	50.0	47.9		ug/L		96	74 - 120	2	30
Benzo[a]pyrene	50.0	40.3		ug/L		81	60 - 116	3	30
Benzo[b]fluoranthene	50.0	44.0		ug/L		88	71 - 120	3	30
Benzo[g,h,i]perylene	50.0	39.4		ug/L		79	60 - 120	6	30
Benzo[k]fluoranthene	50.0	44.3		ug/L		89	78 - 120	4	30
Bis(2-chloroethoxy)methane	50.0	41.7		ug/L		83	62 - 120	5	30
Bis(2-chloroethyl)ether	50.0	40.4		ug/L		81	62 - 120	7	30
Bis(2-ethylhexyl) phthalate	50.0	43.3		ug/L		87	60 - 120	6	30

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

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

Lab Sample ID: LCSD 410-202231/3-A

Matrix: Water

Analysis Batch: 202296

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 202231

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Butylbenzylphthalate	50.0	37.9		ug/L		76	11 - 125	2	30	
Caprolactam	50.0	10.8		ug/L		22	12 - 120	1	30	
Carbazole	50.0	43.1		ug/L		86	74 - 120	5	30	
Chrysene	50.0	44.7		ug/L		89	76 - 120	2	30	
Di-n-butyl phthalate	50.0	43.2		ug/L		86	53 - 120	5	30	
Di-n-octyl phthalate	50.0	43.7		ug/L		87	59 - 120	8	30	
Dibenz(a,h)anthracene	50.0	37.0		ug/L		74	62 - 120	5	30	
Dibenzofuran	50.0	42.2		ug/L		84	60 - 112	7	30	
Diethyl phthalate	50.0	41.6		ug/L		83	27 - 120	6	30	
Dimethyl phthalate	50.0	33.1		ug/L		66	10 - 124	1	30	
Fluoranthene	50.0	44.9		ug/L		90	74 - 120	4	30	
Fluorene	50.0	44.1		ug/L		88	64 - 120	8	30	
Hexachlorobenzene	50.0	43.4		ug/L		87	65 - 120	2	30	
Hexachlorobutadiene	50.0	30.3		ug/L		61	24 - 120	4	30	
Hexachlorocyclopentadiene	50.0	11.7		ug/L		23	10 - 120	7	30	
Hexachloroethane	50.0	28.5		ug/L		57	22 - 120	6	30	
Indeno[1,2,3-cd]pyrene	50.0	37.7		ug/L		75	52 - 121	5	30	
Isophorone	50.0	40.1		ug/L		80	70 - 120	6	30	
N-Nitrosodi-n-propylamine	50.0	39.7		ug/L		79	63 - 120	6	30	
N-Nitrosodiphenylamine	42.5	38.5		ug/L		91	72 - 120	5	30	
Naphthalene	50.0	38.3		ug/L		77	51 - 102	6	30	
Nitrobenzene	50.0	39.4		ug/L		79	59 - 120	5	30	
Phenanthrene	50.0	42.3		ug/L		85	72 - 120	6	30	
Phenol	50.0	19.5		ug/L		39	22 - 120	0	30	
Pyrene	50.0	43.9		ug/L		88	73 - 120	5	30	
Pentachlorophenol	100	86.6		ug/L		87	48 - 123	5	30	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
p-Terphenyl-d14 (Surr)	80		31 - 119
Nitrobenzene-d5 (Surr)	74		22 - 117
2-Fluorophenol (Surr)	50		10 - 78
2-Fluorobiphenyl (Surr)	81		35 - 100
2,4,6-Tribromophenol (Surr)	87		10 - 150
Phenol-d5 (Surr)	39		10 - 67

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-202747/1-A

Matrix: Water

Analysis Batch: 203188

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 202747

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin (1C)	0.0020	U	0.020	0.0020	ug/L		12/08/21 08:43	12/09/21 06:53	1
alpha-BHC (1C)	0.0030	U	0.020	0.0030	ug/L		12/08/21 08:43	12/09/21 06:53	1
alpha-Chlordane (1C)	0.0030	U	0.020	0.0030	ug/L		12/08/21 08:43	12/09/21 06:53	1
beta-BHC (1C)	0.0034	U	0.020	0.0034	ug/L		12/08/21 08:43	12/09/21 06:53	1
delta-BHC (1C)	0.0034	U	0.020	0.0034	ug/L		12/08/21 08:43	12/09/21 06:53	1
Dieldrin (1C)	0.0053	U	0.030	0.0053	ug/L		12/08/21 08:43	12/09/21 06:53	1
Endosulfan I (1C)	0.0043	U	0.020	0.0043	ug/L		12/08/21 08:43	12/09/21 06:53	1

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

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

Lab Sample ID: MB 410-202747/1-A

Matrix: Water

Analysis Batch: 203188

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 202747

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Endosulfan II (1C)	0.015	U	0.040	0.015	ug/L		12/08/21 08:43	12/09/21 06:53	1
Endosulfan sulfate (1C)	0.0058	U	0.030	0.0058	ug/L		12/08/21 08:43	12/09/21 06:53	1
Endrin (1C)	0.0081	U	0.030	0.0081	ug/L		12/08/21 08:43	12/09/21 06:53	1
Endrin aldehyde (1C)	0.020	U	0.10	0.020	ug/L		12/08/21 08:43	12/09/21 06:53	1
Endrin ketone (1C)	0.0050	U	0.030	0.0050	ug/L		12/08/21 08:43	12/09/21 06:53	1
gamma-BHC (Lindane) (1C)	0.0020	U	0.020	0.0020	ug/L		12/08/21 08:43	12/09/21 06:53	1
gamma-Chlordane (1C)	0.0070	U	0.040	0.0070	ug/L		12/08/21 08:43	12/09/21 06:53	1
Heptachlor (1C)	0.0020	U	0.020	0.0020	ug/L		12/08/21 08:43	12/09/21 06:53	1
Heptachlor epoxide (1C)	0.0023	U	0.020	0.0023	ug/L		12/08/21 08:43	12/09/21 06:53	1
Methoxychlor (1C)	0.030	U	0.11	0.030	ug/L		12/08/21 08:43	12/09/21 06:53	1
Toxaphene (1C)	0.30	U	1.0	0.30	ug/L		12/08/21 08:43	12/09/21 06:53	1
p,p'-DDD (1C)	0.0050	U	0.030	0.0050	ug/L		12/08/21 08:43	12/09/21 06:53	1
p,p'-DDE (1C)	0.0050	U	0.030	0.0050	ug/L		12/08/21 08:43	12/09/21 06:53	1
p,p'-DDT (1C)	0.0052	U	0.030	0.0052	ug/L		12/08/21 08:43	12/09/21 06:53	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	85		20 - 149	12/08/21 08:43	12/09/21 06:53	1
DCB Decachlorobiphenyl (Surr) (2C)	80		20 - 149	12/08/21 08:43	12/09/21 06:53	1
Tetrachloro-m-xylene (Surr) (1C)	85		20 - 129	12/08/21 08:43	12/09/21 06:53	1
Tetrachloro-m-xylene (Surr) (2C)	75		20 - 129	12/08/21 08:43	12/09/21 06:53	1

Lab Sample ID: LCS 410-202747/2-A

Matrix: Water

Analysis Batch: 203188

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 202747

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
alpha-BHC (1C)	0.101	0.110		ug/L		109	47 - 132
beta-BHC (1C)	0.100	0.112		ug/L		112	65 - 139
delta-BHC (1C)	0.100	0.111		ug/L		111	56 - 141
Dieldrin (1C)	0.200	0.237		ug/L		118	58 - 145
Endosulfan I (1C)	0.101	0.109		ug/L		107	40 - 138
Endosulfan II (1C)	0.201	0.226		ug/L		113	61 - 138
Endosulfan sulfate (1C)	0.201	0.226		ug/L		112	41 - 133
Endrin (1C)	0.200	0.249		ug/L		124	63 - 131
Endrin aldehyde (1C)	0.201	0.208		ug/L		103	57 - 135
Endrin ketone (1C)	0.200	0.228		ug/L		114	67 - 136
gamma-BHC (Lindane) (1C)	0.100	0.106		ug/L		106	61 - 139
Heptachlor (1C)	0.101	0.107		ug/L		105	35 - 136
Heptachlor epoxide (1C)	0.100	0.114		ug/L		114	59 - 146
Methoxychlor (1C)	1.01	1.32		ug/L		131	66 - 148
p,p'-DDD (1C)	0.201	0.234		ug/L		116	42 - 148
p,p'-DDE (1C)	0.201	0.218		ug/L		108	20 - 140
p,p'-DDT (1C)	0.201	0.266		ug/L		132	40 - 145

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr) (1C)	87		20 - 149

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

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

Lab Sample ID: LCS 410-202747/2-A
Matrix: Water
Analysis Batch: 203188

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 202747

Surrogate	LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr) (2C)	80		20 - 149
Tetrachloro-m-xylene (Surr) (1C)	82		20 - 129
Tetrachloro-m-xylene (Surr) (2C)	72		20 - 129

Lab Sample ID: LCSD 410-202747/3-A
Matrix: Water
Analysis Batch: 203188

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 202747

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
Aldrin (1C)	0.101	0.0686	*1	ug/L		68	10 - 148	36	30	
alpha-BHC (1C)	0.101	0.0782	*1	ug/L		77	47 - 132	34	30	
beta-BHC (1C)	0.100	0.101		ug/L		101	65 - 139	10	30	
delta-BHC (1C)	0.100	0.0806	*1	ug/L		81	56 - 141	31	30	
Dieldrin (1C)	0.200	0.172	*1	ug/L		86	58 - 145	32	30	
Endosulfan I (1C)	0.101	0.0769	*1	ug/L		76	40 - 138	34	30	
Endosulfan II (1C)	0.201	0.166	*1	ug/L		82	61 - 138	31	30	
Endosulfan sulfate (1C)	0.201	0.168		ug/L		84	41 - 133	29	30	
Endrin (1C)	0.200	0.181	*1	ug/L		91	63 - 131	31	30	
Endrin aldehyde (1C)	0.201	0.166	*1	ug/L		83	57 - 135	22	20	
Endrin ketone (1C)	0.200	0.165	*1	ug/L		83	67 - 136	32	30	
gamma-BHC (Lindane) (1C)	0.100	0.0770	*1	ug/L		77	61 - 139	32	30	
Heptachlor (1C)	0.101	0.0786		ug/L		78	35 - 136	30	30	
Heptachlor epoxide (1C)	0.100	0.0795	*1	ug/L		80	59 - 146	35	30	
Methoxychlor (1C)	1.01	1.01		ug/L		100	66 - 148	27	30	
p,p'-DDD (1C)	0.201	0.170	*1	ug/L		84	42 - 148	32	30	
p,p'-DDE (1C)	0.201	0.152	*1	ug/L		76	20 - 140	36	30	
p,p'-DDT (1C)	0.201	0.195	*1	ug/L		97	40 - 145	31	30	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr) (1C)	12	S1-	20 - 149
DCB Decachlorobiphenyl (Surr) (2C)	11	S1-	20 - 149
Tetrachloro-m-xylene (Surr) (1C)	56		20 - 129
Tetrachloro-m-xylene (Surr) (2C)	51		20 - 129

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-201195/1-A
Matrix: Water
Analysis Batch: 201889

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201195

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 11:21	1
Aluminum	0.16	U	0.31	0.16	mg/L		12/03/21 10:47	12/06/21 11:21	1

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

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

Lab Sample ID: MB 410-201195/1-A

Matrix: Water

Analysis Batch: 201889

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201195

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 11:21	1
Barium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 11:21	1
Beryllium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 11:21	1
Cadmium	0.0010	U	0.0052	0.0010	mg/L		12/03/21 10:47	12/06/21 11:21	1
Calcium	0.099	U	0.52	0.099	mg/L		12/03/21 10:47	12/06/21 11:21	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/03/21 10:47	12/06/21 11:21	1
Cobalt	0.0015	U	0.0052	0.0015	mg/L		12/03/21 10:47	12/06/21 11:21	1
Copper	0.012	U	0.021	0.012	mg/L		12/03/21 10:47	12/06/21 11:21	1
Iron	0.041	U	0.21	0.041	mg/L		12/03/21 10:47	12/06/21 11:21	1
Lead	0.0073	U ^3+	0.015	0.0073	mg/L		12/03/21 10:47	12/06/21 11:21	1
Magnesium	0.041	U ^5-	0.10	0.041	mg/L		12/03/21 10:47	12/06/21 11:21	1
Manganese	0.0031	U	0.010	0.0031	mg/L		12/03/21 10:47	12/06/21 11:21	1
Nickel	0.0022	U	0.010	0.0022	mg/L		12/03/21 10:47	12/06/21 11:21	1
Potassium	0.21	U ^3+	0.52	0.21	mg/L		12/03/21 10:47	12/06/21 11:21	1
Selenium	0.016	U	0.052	0.016	mg/L		12/03/21 10:47	12/06/21 11:21	1
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/03/21 10:47	12/06/21 11:21	1
Sodium	0.25	U	1.0	0.25	mg/L		12/03/21 10:47	12/06/21 11:21	1
Thallium	0.0083	U	0.031	0.0083	mg/L		12/03/21 10:47	12/06/21 11:21	1
Zinc	0.0038	U	0.021	0.0038	mg/L		12/03/21 10:47	12/06/21 11:21	1
Vanadium	0.0020	U	0.010	0.0020	mg/L		12/03/21 10:47	12/06/21 11:21	1

Lab Sample ID: LCS 410-201195/2-A

Matrix: Water

Analysis Batch: 201889

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201195

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Antimony	0.100	0.100		mg/L		100	80 - 120
Aluminum	5.00	4.93		mg/L		99	80 - 120
Arsenic	0.500	0.518		mg/L		104	80 - 120
Barium	0.500	0.513		mg/L		103	80 - 120
Beryllium	0.0500	0.0508		mg/L		102	80 - 120
Cadmium	0.0500	0.0512		mg/L		103	80 - 120
Calcium	5.00	5.06		mg/L		101	80 - 120
Chromium	0.500	0.535		mg/L		107	80 - 120
Cobalt	0.500	0.511		mg/L		102	80 - 120
Copper	0.500	0.511		mg/L		102	80 - 120
Iron	5.00	5.13		mg/L		103	80 - 120
Lead	0.0500	0.0538	^3+	mg/L		108	80 - 120
Magnesium	5.00	5.09	^5-	mg/L		102	80 - 120
Manganese	0.500	0.522		mg/L		104	80 - 120
Nickel	0.500	0.514		mg/L		103	80 - 120
Selenium	0.100	0.103		mg/L		103	80 - 120
Silver	0.0500	0.0522	^5-	mg/L		104	80 - 120
Sodium	5.00	5.21		mg/L		104	80 - 120
Thallium	0.100	0.102		mg/L		102	80 - 120
Zinc	0.500	0.505		mg/L		101	80 - 120
Vanadium	0.500	0.526		mg/L		105	80 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

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

Lab Sample ID: LCS 410-201195/2-A
Matrix: Water
Analysis Batch: 202390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201195

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	5.00	5.14		mg/L		103	80 - 120

Lab Sample ID: MB 410-201595/1-A
Matrix: Water
Analysis Batch: 203967

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 201595

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.15	U	0.30	0.15	mg/L		12/05/21 10:19	12/10/21 11:47	1
Arsenic	0.016	U	0.050	0.016	mg/L		12/05/21 10:19	12/10/21 11:47	1
Barium	0.0010	U	0.0050	0.0010	mg/L		12/05/21 10:19	12/10/21 11:47	1
Beryllium	0.0010	U	0.0050	0.0010	mg/L		12/05/21 10:19	12/10/21 11:47	1
Cadmium	0.0010	U	0.0050	0.0010	mg/L		12/05/21 10:19	12/10/21 11:47	1
Calcium	0.096	U	0.50	0.096	mg/L		12/05/21 10:19	12/10/21 11:47	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/05/21 10:19	12/10/21 11:47	1
Cobalt	0.0015	U	0.0050	0.0015	mg/L		12/05/21 10:19	12/10/21 11:47	1
Copper	0.012	U	0.020	0.012	mg/L		12/05/21 10:19	12/10/21 11:47	1
Iron	0.040	U	0.20	0.040	mg/L		12/05/21 10:19	12/10/21 11:47	1
Magnesium	0.040	U ^5-	0.10	0.040	mg/L		12/05/21 10:19	12/10/21 11:47	1
Manganese	0.0030	U	0.010	0.0030	mg/L		12/05/21 10:19	12/10/21 11:47	1
Nickel	0.0021	U	0.010	0.0021	mg/L		12/05/21 10:19	12/10/21 11:47	1
Selenium	0.016	U	0.050	0.016	mg/L		12/05/21 10:19	12/10/21 11:47	1
Silver	0.0050	U ^5-	0.010	0.0050	mg/L		12/05/21 10:19	12/10/21 11:47	1
Sodium	0.24	U	1.0	0.24	mg/L		12/05/21 10:19	12/10/21 11:47	1
Thallium	0.0081	U	0.030	0.0081	mg/L		12/05/21 10:19	12/10/21 11:47	1
Zinc	0.0037	U	0.020	0.0037	mg/L		12/05/21 10:19	12/10/21 11:47	1
Vanadium	0.0019	U	0.010	0.0019	mg/L		12/05/21 10:19	12/10/21 11:47	1

Lab Sample ID: MB 410-201595/1-A
Matrix: Water
Analysis Batch: 204121

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 201595

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.050	0.016	mg/L		12/05/21 10:19	12/10/21 20:56	1
Lead	0.0071	U	0.015	0.0071	mg/L		12/05/21 10:19	12/10/21 20:56	1
Potassium	0.20	U	0.50	0.20	mg/L		12/05/21 10:19	12/10/21 20:56	1

Lab Sample ID: LCS 410-201595/2-A
Matrix: Water
Analysis Batch: 203967

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 201595

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	5.00	4.83		mg/L		97	80 - 120
Arsenic	0.500	0.524		mg/L		105	80 - 120
Barium	0.500	0.489		mg/L		98	80 - 120
Beryllium	0.0500	0.0499		mg/L		100	80 - 120
Cadmium	0.0500	0.0503		mg/L		101	80 - 120
Calcium	5.00	5.00		mg/L		100	80 - 120
Chromium	0.500	0.503		mg/L		101	80 - 120
Cobalt	0.500	0.507		mg/L		101	80 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

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

Lab Sample ID: LCS 410-201595/2-A
Matrix: Water
Analysis Batch: 203967

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 201595

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Copper	0.500	0.495		mg/L		99	80 - 120
Iron	5.00	5.23		mg/L		105	80 - 120
Magnesium	5.00	5.06	^5-	mg/L		101	80 - 120
Manganese	0.500	0.499		mg/L		100	80 - 120
Nickel	0.500	0.506		mg/L		101	80 - 120
Selenium	0.100	0.0920		mg/L		92	80 - 120
Silver	0.0500	0.0518	^5-	mg/L		104	80 - 120
Sodium	5.00	5.16		mg/L		103	80 - 120
Thallium	0.100	0.0955		mg/L		95	80 - 120
Zinc	0.500	0.490		mg/L		98	80 - 120
Vanadium	0.500	0.501		mg/L		100	80 - 120

Lab Sample ID: LCS 410-201595/2-A
Matrix: Water
Analysis Batch: 204121

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 201595

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Antimony	0.100	0.115		mg/L		115	80 - 120
Lead	0.0500	0.0554		mg/L		111	80 - 120
Potassium	5.00	4.88		mg/L		98	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-201029/1-A
Matrix: Water
Analysis Batch: 201286

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201029

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.079	U	0.20	0.079	ug/L		12/03/21 06:31	12/03/21 13:52	1

Lab Sample ID: LCS 410-201029/2-A
Matrix: Water
Analysis Batch: 201286

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201029

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Mercury	1.00	0.913		ug/L		91	80 - 118

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

GC/MS VOA

Analysis Batch: 202735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65343-1	PS-02P	Total/NA	Water	8260C	
MB 410-202735/8	Method Blank	Total/NA	Water	8260C	
LCS 410-202735/5	Lab Control Sample	Total/NA	Water	8260C	
LCS 410-202735/6	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 202231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65343-1	PS-02P	Total/NA	Water	3510C	
MB 410-202231/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-202231/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-202231/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 202296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-202231/1-A	Method Blank	Total/NA	Water	8270D	202231
LCS 410-202231/2-A	Lab Control Sample	Total/NA	Water	8270D	202231
LCSD 410-202231/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	202231

Analysis Batch: 202772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65343-1	PS-02P	Total/NA	Water	8270D	202231

GC Semi VOA

Prep Batch: 202747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65343-1	PS-02P	Total/NA	Water	3510C	
MB 410-202747/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-202747/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-202747/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 203188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65343-1	PS-02P	Total/NA	Water	8081B	202747
MB 410-202747/1-A	Method Blank	Total/NA	Water	8081B	202747
LCS 410-202747/2-A	Lab Control Sample	Total/NA	Water	8081B	202747
LCSD 410-202747/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	202747

Metals

Prep Batch: 201029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65343-1	PS-02P	Dissolved	Water	7470A	201044
410-65343-1	PS-02P	Total/NA	Water	7470A	
MB 410-201029/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-201029/2-A	Lab Control Sample	Total/NA	Water	7470A	

Filtration Batch: 201044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65343-1	PS-02P	Dissolved	Water	Filtration	

Eurofins Lancaster Laboratories Env, LLC

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

Metals

Prep Batch: 201195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65343-1	PS-02P	Dissolved	Water	Non-Digest Prep	201044
MB 410-201195/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-201195/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 201286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65343-1	PS-02P	Dissolved	Water	7470A	201029
410-65343-1	PS-02P	Total/NA	Water	7470A	201029
MB 410-201029/1-A	Method Blank	Total/NA	Water	7470A	201029
LCS 410-201029/2-A	Lab Control Sample	Total/NA	Water	7470A	201029

Prep Batch: 201595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65343-1	PS-02P	Total Recoverable	Water	3005A	
MB 410-201595/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-201595/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 201889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65343-1	PS-02P	Dissolved	Water	6010D	201195
MB 410-201195/1-A	Method Blank	Total/NA	Water	6010D	201195
LCS 410-201195/2-A	Lab Control Sample	Total/NA	Water	6010D	201195

Analysis Batch: 202390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65343-1	PS-02P	Dissolved	Water	6010D	201195
LCS 410-201195/2-A	Lab Control Sample	Total/NA	Water	6010D	201195

Analysis Batch: 203967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65343-1	PS-02P	Total Recoverable	Water	6010D	201595
MB 410-201595/1-A	Method Blank	Total Recoverable	Water	6010D	201595
LCS 410-201595/2-A	Lab Control Sample	Total Recoverable	Water	6010D	201595

Analysis Batch: 204121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65343-1	PS-02P	Total Recoverable	Water	6010D	201595
MB 410-201595/1-A	Method Blank	Total Recoverable	Water	6010D	201595
LCS 410-201595/2-A	Lab Control Sample	Total Recoverable	Water	6010D	201595

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

Client Sample ID: PS-02P

Lab Sample ID: 410-65343-1

Date Collected: 12/02/21 09:00

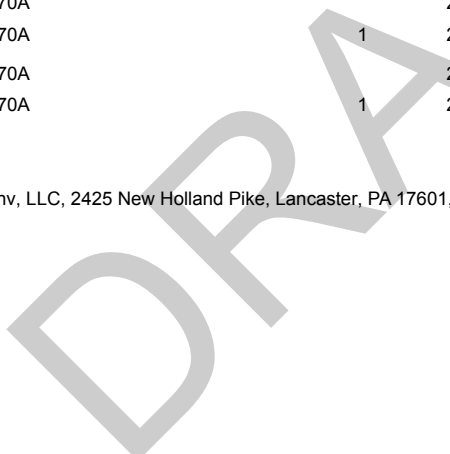
Matrix: Water

Date Received: 12/02/21 17:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	202735	12/08/21 19:14	ULCP	ELLE
Total/NA	Prep	3510C			202231	12/07/21 09:02	BLX5	ELLE
Total/NA	Analysis	8270D		1	202772	12/08/21 14:55	SJ89	ELLE
Total/NA	Prep	3510C			202747	12/08/21 08:43	BLX5	ELLE
Total/NA	Analysis	8081B		5	203188	12/09/21 10:08	WN70	ELLE
Dissolved	Filtration	Filtration			201044	12/03/21 07:24	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201195	12/03/21 10:47	WBK6	ELLE
Dissolved	Analysis	6010D		1	202390	12/07/21 10:40	WJM9	ELLE
Dissolved	Filtration	Filtration			201044	12/03/21 07:24	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			201195	12/03/21 10:47	WBK6	ELLE
Dissolved	Analysis	6010D		1	201889	12/06/21 12:37	WJM9	ELLE
Total Recoverable	Prep	3005A			201595	12/05/21 10:19	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	204121	12/10/21 21:53	T8CQ	ELLE
Total Recoverable	Prep	3005A			201595	12/05/21 10:19	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	203967	12/10/21 12:17	WJM9	ELLE
Dissolved	Filtration	Filtration			201044	12/03/21 07:24	UDL9	ELLE
Dissolved	Prep	7470A			201029	12/03/21 07:59	UAMX	ELLE
Dissolved	Analysis	7470A		1	201286	12/03/21 14:38	UEFS	ELLE
Total/NA	Prep	7470A			201029	12/03/21 06:31	UAMX	ELLE
Total/NA	Analysis	7470A		1	201286	12/03/21 14:12	UEFS	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300



Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22

DRAFT

- 1
- 2
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Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
6010D	Metals (ICP)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

DRAFT



Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-65343-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-65343-1	PS-02P	Water	12/02/21 09:00	12/02/21 17:56

DRAFT

- 1
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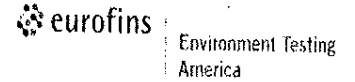
>> Select a Laboratory

#N/A
#N/A
#N/A
##



410-65343 Chain of Custody

Chain of Custody Record



TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Program: DW NPDES RCRA Other: VADEP

Client Contact		Project Manager: <u>ASHLEY SWEENEY</u>		Site Contact: <u>POLLY N...</u>		Date: <u>12/21/2021</u>		COC No: <u>1</u>	
Your Company Name here <u>RAW ASSOCIATES</u>		Email: <u>ASWEENEY@RAWINC.COM</u>		Lab Contact:		Carrier:		of COCs	
Address <u>402 HAZEN DRIVE</u>		Tel/Fax:		Analysis Turnaround Time				TALS Project #:	
City/State/Zip <u>LEONARD TWP, NJ 07033</u>		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		TAT if different from Below				Sampler:	
(xxx) xxx-xxxx Phone <u>908-423-0100</u>				<input checked="" type="checkbox"/> 2 weeks				For Lab Use Only:	
(xxx) xxx-xxxx FAX				<input type="checkbox"/> 1 week				Walk-in Client:	
Project Name: <u>MILLER - ALEXANDRIA</u>				<input type="checkbox"/> 2 days				Lab Sampling:	
Site: <u>ALEXANDRIA, VA</u>				<input type="checkbox"/> 1 day				Job / SDG No.:	
P O #									

Sample Identification				Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix		# of Cont.		Filtered Sample (Y/N)		Perform MS/MSD (Y/N)		Sample Specific Notes:											
<u>PS-02P</u>				<u>12/21/21</u>		<u>9:00</u>		<u>G</u>		<u>GW</u>		<u>12</u>		<u></u>		<u>XXXX</u>		<u>Lab to field filter</u>											
Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other																													
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown										<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months																			
Special Instructions/QC Requirements & Comments:																													
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No					Custody Seal No.:					Cooler Temp. (°C): Obs'd: <u>1</u> Corr'd: <u>1.2</u>					Therm ID No: <u>46780062WS</u>														
Relinquished by: <u>[Signature]</u>					Company: <u>[Signature]</u>					Date/Time: <u>12/21/21 15:35</u>					Received by: <u>[Signature]</u>					Company: <u>EIA S&T</u>					Date/Time: <u>12/21/21</u>				
Relinquished by: <u>[Signature]</u>					Company: <u>[Signature]</u>					Date/Time: <u>12/21/21 17:36</u>					Received in Laboratory by: <u>[Signature]</u>					Company: <u>EUE</u>					Date/Time: <u>12/21/21 17:40</u>				



Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-65343-1

Login Number: 65343

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Leakway, Christian

Question	Answer	Comment
The cooler's custody seal is 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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-65597-1

Client Project/Site: Mueser - Alexandria, VA

For:

Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
1/3/2022 10:28:08 AM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Kelly Tessier

Kelly Tessier
Project Manager
1/3/2022 10:28:08 AM



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Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
F1	MS and/or MSD recovery exceeds control limits.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
U	Indicates the analyte was analyzed for but not detected.

Geotechnical

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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)

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Glossary (Continued)

Abbreviation **These commonly used abbreviations may or may not be present in this report.**

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
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

DRAFT

Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Job ID: 410-65597-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-65597-1

Receipt

The samples were received on 12/4/2021 10:03 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.4°C

Receipt Exceptions

A trip blank was not submitted for analysis with this sample shipment; and was not listed on the Chain of Custody (COC).

GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-204249 recovered outside acceptance criteria, low biased, for Methylcyclohexane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-204249 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The continuing calibration verification (CCV) analyzed on 410-204249 is compliant under 8260C/D method criteria for Freon 113. The software does not display the % Drift data to the whole number as is listed in the method (i.e. limit of 20%). When applying the evaluation to a whole number, the check passes the criteria with a value of 20% Drift.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-203772 recovered above the upper control limit for Freon 113, 2-Butanone and Cyclohexane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The continuing calibration verification (CCV) analyzed on 410-203772 is compliant under 8260C/D method criteria for Carbon disulfide. The software does not display the % Drift data to the whole number as is listed in the method (i.e. limit of 20%). When applying the evaluation to a whole number, the check passes the criteria with a value of 20% Drift.

Method 8260C: The method blank for 410-203772 contained Acetone above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

GC/MS Semi VOA

Method 8270D: Di-n-butyl phthalate was detected above the reporting limit (RL) in the method blank associated with preparation batch 410-203249 and analytical batch 410-204549 as well as in the following sample: BH-03 (410-65597-2). All affected samples were re-extracted and/or re-analyzed outside of holding time. The first set of data has been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 410-204722 recovered above the upper control limit for 4-Nitrophenol and Hexachlorocyclopentadiene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: BH-03 (0-0.5) (410-65597-1).

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

PCBs

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

Pesticides

Method 8081B: The DCB Decachlorobiphenyl surrogate recovery for laboratory control sample duplicate (LCSD) associated with preparation batch 410-202747 and analytical batch 410-203188 was outside the lower control limits. The recoveries for the analytes of interest were within acceptable control limits. The data is reported.

Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Job ID: 410-65597-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

Method 8081B: The continuing calibration verification (CCV) associated with batch 410-206517 recovered above the upper control limit for p,p'-DDT and Methoxychlor. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: BH-03 (0-0.5) (410-65597-1) and (410-65939-I-19-B).

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

Metals

Method 6010D: The following sample was not filtered within 15 minutes of sample collection as required by the method: BH-03 (410-65597-2). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 7470A: The following sample was not filtered within 15 minutes of sample collection as required by the method: BH-03 (410-65597-2). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 7470A: The following sample was not filtered within 15 minutes of sample collection as required by the method: BH-03 (410-65597-2). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

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

General Chemistry

Method Lloyd_Kahn_Mod: Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis. BH-03 (0-0.5) (410-65597-1), (180-131024-A-11), (180-131024-A-11 MS) and (180-131024-A-11 MSD)

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

Geotechnical

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

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Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Client Sample ID: BH-03 (0-0.5)

Lab Sample ID: 410-65597-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	160	cn	55	17	ug/Kg	1	*	8260C	Total/NA
2-Butanone	38	cn	28	5.5	ug/Kg	1	*	8260C	Total/NA
2-Methylnaphthalene	13	J cn	35	10	ug/Kg	1	*	8270D	Total/NA
Acenaphthene	8.6	J cn	35	7.0	ug/Kg	1	*	8270D	Total/NA
Acenaphthylene	9.4	J cn	35	8.4	ug/Kg	1	*	8270D	Total/NA
Anthracene	14	J cn	35	7.0	ug/Kg	1	*	8270D	Total/NA
Benzo[a]anthracene	29	J cn	35	7.0	ug/Kg	1	*	8270D	Total/NA
Benzo[a]pyrene	35	cn	35	7.0	ug/Kg	1	*	8270D	Total/NA
Benzo[b]fluoranthene	53	cn	35	7.0	ug/Kg	1	*	8270D	Total/NA
Benzo[g,h,i]perylene	35	cn	35	7.0	ug/Kg	1	*	8270D	Total/NA
Benzo[k]fluoranthene	18	J cn	35	7.0	ug/Kg	1	*	8270D	Total/NA
Chrysene	48	cn	35	7.0	ug/Kg	1	*	8270D	Total/NA
Fluoranthene	67	cn	35	7.0	ug/Kg	1	*	8270D	Total/NA
Fluorene	8.1	J cn	35	7.0	ug/Kg	1	*	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	31	J cn	35	8.4	ug/Kg	1	*	8270D	Total/NA
Phenanthrene	34	J cn	35	8.4	ug/Kg	1	*	8270D	Total/NA
Pyrene	60	cn	35	7.0	ug/Kg	1	*	8270D	Total/NA
gamma-BHC (Lindane) (2C)	2.5	J p cn	8.7	2.2	ug/Kg	5	*	8081B	Total/NA
PCB-1248 (1C)	20	J	36	11	ug/Kg	1	*	8082A	Total/NA
PCB-1254 (1C)	15	J	36	13	ug/Kg	1	*	8082A	Total/NA
PCB-1260 (1C)	16	J	36	13	ug/Kg	1	*	8082A	Total/NA
Aluminum	28000		37	19	mg/Kg	1	*	6010D	Total/NA
Arsenic	6.7		5.5	2.6	mg/Kg	1	*	6010D	Total/NA
Barium	180		0.92	0.28	mg/Kg	1	*	6010D	Total/NA
Beryllium	1.5		0.92	0.18	mg/Kg	1	*	6010D	Total/NA
Cadmium	0.27	J	0.92	0.18	mg/Kg	1	*	6010D	Total/NA
Calcium	7000		92	22	mg/Kg	1	*	6010D	Total/NA
Chromium	39		2.8	0.33	mg/Kg	1	*	6010D	Total/NA
Cobalt	22		0.92	0.27	mg/Kg	1	*	6010D	Total/NA
Copper	46		3.7	1.4	mg/Kg	1	*	6010D	Total/NA
Iron	40000		37	11	mg/Kg	1	*	6010D	Total/NA
Lead	36		2.8	1.1	mg/Kg	1	*	6010D	Total/NA
Magnesium	4500		18	7.4	mg/Kg	1	*	6010D	Total/NA
Manganese	830		1.8	0.96	mg/Kg	1	*	6010D	Total/NA
Nickel	39		1.8	0.48	mg/Kg	1	*	6010D	Total/NA
Potassium	2800		92	37	mg/Kg	1	*	6010D	Total/NA
Sodium	200		180	85	mg/Kg	1	*	6010D	Total/NA
Zinc	170		3.7	1.8	mg/Kg	1	*	6010D	Total/NA
Vanadium	65		1.8	0.79	mg/Kg	1	*	6010D	Total/NA
Mercury	0.18	F1	0.12	0.051	mg/Kg	1	*	7471B	Total/NA
Total Organic Carbon - Duplicates	36000	cn	2100	2100	mg/Kg	1	*	EPA-Lloyd Kahn	Total/NA
Sand	3.9		1.0	0.5	%	1		D422	Total/NA
Silt	66.1		1.0	0.5	%	1		D422	Total/NA
Clay	30.0		1.0	0.5	%	1		D422	Total/NA
75 mm	100.0		1.0	0.5	% Passing	1		D422	Total/NA
37.5 mm	100.0		1.0	0.5	% Passing	1		D422	Total/NA
19 mm	100.0		1.0	0.5	% Passing	1		D422	Total/NA
4.75 mm	100		1.0	0.5	% Passing	1		D422	Total/NA
3.35 mm	99.9		1.0	0.5	% Passing	1		D422	Total/NA
2.36 mm	99.6		1.0	0.5	% Passing	1		D422	Total/NA
1.18 mm	99.4		1.0	0.5	% Passing	1		D422	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Client Sample ID: BH-03 (0-0.5) (Continued)

Lab Sample ID: 410-65597-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
0.6 mm	99.4		1.0	0.5	% Passing	1		D422	Total/NA
0.3 mm	99.3		1.0	0.5	% Passing	1		D422	Total/NA
0.15 mm	98.4		1.0	0.5	% Passing	1		D422	Total/NA
0.064 mm	94.0		1.0	0.5	% Passing	1		D422	Total/NA
0.05 mm	89.0		1.0	0.5	% Passing	1		D422	Total/NA
0.02 mm	68.0		1.0	0.5	% Passing	1		D422	Total/NA
0.005 mm	30.0		1.0	0.5	% Passing	1		D422	Total/NA
0.002 mm	21.0		1.0	0.5	% Passing	1		D422	Total/NA
0.001 mm	19.0		1.0	0.5	% Passing	1		D422	Total/NA
0.075 mm	96.1		1.0	0.5	% Passing	1		D422	Total/NA

Client Sample ID: BH-03

Lab Sample ID: 410-65597-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	1.4	cn	1.0	0.20	ug/L	1		8260C	Total/NA
Acetone	1.5	J cn	20	0.70	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	8.8	B *+ cn	5.0	2.0	ug/L	1		8270D	Total/NA
Aluminum	0.28	J	0.30	0.15	mg/L	1		6010D	Total Recoverable
Barium	0.038		0.0050	0.0010	mg/L	1		6010D	Total Recoverable
Calcium	40		0.50	0.096	mg/L	1		6010D	Total Recoverable
Iron	0.48		0.20	0.040	mg/L	1		6010D	Total Recoverable
Magnesium	10		0.10	0.040	mg/L	1		6010D	Total Recoverable
Manganese	0.042		0.010	0.0030	mg/L	1		6010D	Total Recoverable
Potassium	2.8		0.50	0.20	mg/L	1		6010D	Total Recoverable
Sodium	14		1.0	0.24	mg/L	1		6010D	Total Recoverable
Zinc	0.0056	J	0.020	0.0037	mg/L	1		6010D	Total Recoverable
Barium	0.035		0.0052	0.0010	mg/L	1		6010D	Dissolved
Calcium	40		0.52	0.099	mg/L	1		6010D	Dissolved
Iron	0.053	J	0.21	0.041	mg/L	1		6010D	Dissolved
Magnesium	10	^5-	0.10	0.041	mg/L	1		6010D	Dissolved
Manganese	0.026		0.010	0.0031	mg/L	1		6010D	Dissolved
Potassium	2.8		0.52	0.21	mg/L	1		6010D	Dissolved
Sodium	14		1.0	0.25	mg/L	1		6010D	Dissolved
Zinc	0.0047	J	0.021	0.0038	mg/L	1		6010D	Dissolved
Total Hardness	160		50	15	mg/L	5		2340C-2011	Total/NA
Total Organic Carbon	2.0		1.0	0.50	mg/L	1		5310C-2011	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Client Sample ID: BH-03 (0-0.5)

Lab Sample ID: 410-65597-1

Date Collected: 12/03/21 13:35

Matrix: Solid

Date Received: 12/04/21 10:03

Percent Solids: 46.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	1.1	U cn	14	1.1	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
trans-1,3-Dichloropropene	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Ethylbenzene	1.1	U cn	14	1.1	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Styrene	1.1	U cn	14	1.1	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
1,4-Dichlorobenzene	1.1	U cn	14	1.1	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
1,2-Dibromoethane	1.1	U cn	14	1.1	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
1,2-Dichloroethane	1.7	U cn	14	1.7	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
4-Methyl-2-pentanone	2.8	U cn	28	2.8	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Methylcyclohexane	1.7	U cn	14	1.7	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Toluene	1.7	U cn	14	1.7	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Chlorobenzene	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Cyclohexane	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
1,2,4-Trichlorobenzene	14	U cn	28	14	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
1,4-Dioxane	100	U cn	690	100	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Dibromochloromethane	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Tetrachloroethene	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
cis-1,2-Dichloroethene	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
trans-1,2-Dichloroethene	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Methyl tertiary butyl ether	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
m&p-Xylene	2.8	U cn	14	2.8	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
1,3-Dichlorobenzene	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Carbon tetrachloride	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
2-Hexanone	2.8	U cn	28	2.8	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Acetone	160	cn	55	17	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Chloroform	1.7	U cn	14	1.7	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Benzene	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
1,1,1-Trichloroethane	1.7	U cn	14	1.7	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Bromomethane	1.9	U cn	14	1.9	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Chloromethane	1.7	U cn	14	1.7	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Bromochloromethane	1.7	U cn	14	1.7	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Chloroethane	2.8	U cn	14	2.8	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Vinyl chloride	1.7	U cn	14	1.7	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Methylene Chloride	5.5	U cn	14	5.5	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Carbon disulfide	1.7	U cn	14	1.7	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Bromoform	14	U cn	28	14	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Bromodichloromethane	1.1	U cn	14	1.1	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
1,1-Dichloroethane	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
1,1-Dichloroethene	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Trichlorofluoromethane	1.9	U cn	14	1.9	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Dichlorodifluoromethane	1.7	U cn	14	1.7	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Freon 113	1.7	U cn	28	1.7	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
1,2-Dichloropropane	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
2-Butanone	38	cn	28	5.5	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
1,1,2-Trichloroethane	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Trichloroethene	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Methyl acetate	2.8	U cn	14	2.8	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
1,1,2,2-Tetrachloroethane	1.1	U cn	14	1.1	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
1,2,3-Trichlorobenzene	14	U cn	28	14	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
o-Xylene	1.1	U cn	14	1.1	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Client Sample ID: BH-03 (0-0.5)

Lab Sample ID: 410-65597-1

Date Collected: 12/03/21 13:35

Matrix: Solid

Date Received: 12/04/21 10:03

Percent Solids: 46.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
1,2-Dibromo-3-Chloropropane	1.4	U cn	14	1.4	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Isopropylbenzene	1.1	U cn	14	1.1	ug/Kg	☼	12/04/21 20:49	12/10/21 19:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100	cn	54 - 135				12/04/21 20:49	12/10/21 19:05	1
4-Bromofluorobenzene (Surr)	86	cn	50 - 131				12/04/21 20:49	12/10/21 19:05	1
Dibromofluoromethane (Surr)	101	cn	50 - 141				12/04/21 20:49	12/10/21 19:05	1
Toluene-d8 (Surr)	109	cn	52 - 141				12/04/21 20:49	12/10/21 19:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	35	U cn	77	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
1,2,4,5-Tetrachlorobenzene	35	U cn	77	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
2,2'-oxybis[1-chloropropane]	42	U cn	91	42	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
2,3,4,6-Tetrachlorophenol	140	U cn	350	140	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
2,4,5-Trichlorophenol	35	U cn	77	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
2,4,6-Trichlorophenol	35	U cn	77	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
2,4-Dichlorophenol	42	U cn	91	42	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
2,4-Dimethylphenol	35	U cn	77	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
2,4-Dinitrophenol	350	U cn	2100	350	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
2,4-Dinitrotoluene	70	U cn	350	70	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
2,6-Dinitrotoluene	35	U cn	77	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
2-Chloronaphthalene	28	U cn	70	28	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
2-Chlorophenol	35	U cn	77	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
2-Methylnaphthalene	13	J cn	35	10	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
2-Methylphenol	42	U cn	110	42	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
2-Nitroaniline	35	U cn	110	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
2-Nitrophenol	42	U cn	110	42	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
3,3'-Dichlorobenzidine	70	U cn	350	70	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
3-Nitroaniline	70	U cn	350	70	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
4,6-Dinitro-2-methylphenol	350	U cn	1100	350	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
4-Bromophenyl-phenylether	35	U cn	77	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
4-Chloro-3-methylphenol	42	U cn	110	42	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
4-Methylphenol	35	U cn	110	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
4-Nitroaniline	70	U cn	350	70	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
4-Nitrophenol	350	U cn	1100	350	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Acenaphthene	8.6	J cn	35	7.0	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Acenaphthylene	9.4	J cn	35	8.4	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Acetophenone	35	U cn	110	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Anthracene	14	J cn	35	7.0	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Atrazine	140	U cn	350	140	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Benzaldehyde	70	U cn	350	70	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Benzo[a]anthracene	29	J cn	35	7.0	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Benzo[a]pyrene	35	cn	35	7.0	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Benzo[b]fluoranthene	53	cn	35	7.0	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Benzo[g,h,i]perylene	35	cn	35	7.0	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Benzo[k]fluoranthene	18	J cn	35	7.0	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Bis(2-chloroethoxy)methane	35	U cn	77	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Bis(2-chloroethyl)ether	35	U cn	77	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Client Sample ID: BH-03 (0-0.5)

Lab Sample ID: 410-65597-1

Date Collected: 12/03/21 13:35

Matrix: Solid

Date Received: 12/04/21 10:03

Percent Solids: 46.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	140	U cn	350	140	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Butylbenzylphthalate	140	U cn	350	140	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Caprolactam	70	U cn	350	70	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Carbazole	35	U cn	77	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Chrysene	48	cn	35	7.0	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Di-n-butyl phthalate	140	U cn	350	140	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Di-n-octyl phthalate	140	U cn	350	140	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Dibenz(a,h)anthracene	14	U cn	35	14	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Dibenzofuran	35	U cn	77	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Diethyl phthalate	140	U cn	350	140	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Dimethyl phthalate	140	U cn	350	140	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Fluoranthene	67	cn	35	7.0	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Fluorene	8.1	J cn	35	7.0	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Hexachlorobenzene	14	U cn	35	14	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Hexachlorobutadiene	42	U cn	110	42	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Hexachlorocyclopentadiene	350	U cn	1100	350	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Hexachloroethane	70	U cn	350	70	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Indeno[1,2,3-cd]pyrene	31	J cn	35	8.4	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Isophorone	35	U cn	140	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
N-Nitrosodi-n-propylamine	70	U cn	140	70	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
N-Nitrosodiphenylamine	35	U cn	77	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Naphthalene	14	U cn	35	14	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Nitrobenzene	35	U cn	77	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Phenanthrene	34	J cn	35	8.4	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Phenol	35	U cn	77	35	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Pyrene	60	cn	35	7.0	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Pentachlorophenol	140	U cn	350	140	ug/Kg	☼	12/13/21 09:15	12/14/21 02:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	65	cn	45 - 108				12/13/21 09:15	12/14/21 02:19	1
Nitrobenzene-d5 (Surr)	49	cn	32 - 97				12/13/21 09:15	12/14/21 02:19	1
2-Fluorophenol (Surr)	59	cn	26 - 96				12/13/21 09:15	12/14/21 02:19	1
2-Fluorobiphenyl (Surr)	59	cn	39 - 100				12/13/21 09:15	12/14/21 02:19	1
2,4,6-Tribromophenol (Surr)	59	cn	13 - 121				12/13/21 09:15	12/14/21 02:19	1
Phenol-d5 (Surr)	56	cn	27 - 104				12/13/21 09:15	12/14/21 02:19	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	1.8	U cn	8.7	1.8	ug/Kg	☼	12/16/21 09:58	12/17/21 09:59	5
alpha-BHC (1C)	1.8	U cn	8.7	1.8	ug/Kg	☼	12/16/21 09:58	12/17/21 09:59	5
alpha-Chlordane (1C)	1.8	U cn	8.7	1.8	ug/Kg	☼	12/16/21 09:58	12/17/21 09:59	5
beta-BHC (1C)	4.6	U cn	11	4.6	ug/Kg	☼	12/16/21 09:58	12/17/21 09:59	5
delta-BHC (2C)	4.7	U cn	11	4.7	ug/Kg	☼	12/16/21 09:58	12/17/21 09:59	5
Dieldrin (1C)	3.5	U cn	18	3.5	ug/Kg	☼	12/16/21 09:58	12/17/21 09:59	5
Endosulfan I (1C)	2.3	U cn	8.7	2.3	ug/Kg	☼	12/16/21 09:58	12/17/21 09:59	5
Endosulfan II (1C)	12	U cn	24	12	ug/Kg	☼	12/16/21 09:58	12/17/21 09:59	5
Endosulfan sulfate (1C)	3.5	U cn	18	3.5	ug/Kg	☼	12/16/21 09:58	12/17/21 09:59	5
Endrin (1C)	7.1	U cn	18	7.1	ug/Kg	☼	12/16/21 09:58	12/17/21 09:59	5
Endrin aldehyde (1C)	3.5	U cn	18	3.5	ug/Kg	☼	12/16/21 09:58	12/17/21 09:59	5
Endrin ketone (1C)	6.3	U cn	21	6.3	ug/Kg	☼	12/16/21 09:58	12/17/21 09:59	5

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Client Sample ID: BH-03 (0-0.5)

Lab Sample ID: 410-65597-1

Date Collected: 12/03/21 13:35

Matrix: Solid

Date Received: 12/04/21 10:03

Percent Solids: 46.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane) (2C)	2.5	J p cn	8.7	2.2	ug/Kg	✳	12/16/21 09:58	12/17/21 09:59	5
gamma-Chlordane (1C)	2.6	U cn	8.7	2.6	ug/Kg	✳	12/16/21 09:58	12/17/21 09:59	5
Heptachlor (1C)	3.3	U cn	8.7	3.3	ug/Kg	✳	12/16/21 09:58	12/17/21 09:59	5
Heptachlor epoxide (1C)	1.8	U cn	8.7	1.8	ug/Kg	✳	12/16/21 09:58	12/17/21 09:59	5
Methoxychlor (1C)	19	U cn	70	19	ug/Kg	✳	12/16/21 09:58	12/17/21 09:59	5
Toxaphene (1C)	150	U cn	350	150	ug/Kg	✳	12/16/21 09:58	12/17/21 09:59	5
p,p'-DDD (1C)	3.5	U *+ cn	18	3.5	ug/Kg	✳	12/16/21 09:58	12/17/21 09:59	5
p,p'-DDE (1C)	3.5	U cn	18	3.5	ug/Kg	✳	12/16/21 09:58	12/17/21 09:59	5
p,p'-DDT (1C)	8.3	U *+ cn	18	8.3	ug/Kg	✳	12/16/21 09:58	12/17/21 09:59	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	82	cn	54 - 143	12/16/21 09:58	12/17/21 09:59	5
DCB Decachlorobiphenyl (Surr) (2C)	79	cn	54 - 143	12/16/21 09:58	12/17/21 09:59	5
Tetrachloro-m-xylene (Surr) (1C)	69	cn	20 - 131	12/16/21 09:58	12/17/21 09:59	5
Tetrachloro-m-xylene (Surr) (2C)	86	cn	20 - 131	12/16/21 09:58	12/17/21 09:59	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	11	U	36	11	ug/Kg	✳	12/16/21 09:58	12/16/21 21:20	1
PCB-1221 (1C)	11	U	36	11	ug/Kg	✳	12/16/21 09:58	12/16/21 21:20	1
PCB-1232 (1C)	11	U	36	11	ug/Kg	✳	12/16/21 09:58	12/16/21 21:20	1
PCB-1242 (1C)	11	U	36	11	ug/Kg	✳	12/16/21 09:58	12/16/21 21:20	1
PCB-1248 (1C)	20	J	36	11	ug/Kg	✳	12/16/21 09:58	12/16/21 21:20	1
PCB-1254 (1C)	15	J	36	13	ug/Kg	✳	12/16/21 09:58	12/16/21 21:20	1
PCB-1260 (1C)	16	J	36	13	ug/Kg	✳	12/16/21 09:58	12/16/21 21:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	73		45 - 143	12/16/21 09:58	12/16/21 21:20	1
DCB Decachlorobiphenyl (Surr) (2C)	75		45 - 143	12/16/21 09:58	12/16/21 21:20	1
Tetrachloro-m-xylene (1C)	77		53 - 140	12/16/21 09:58	12/16/21 21:20	1
Tetrachloro-m-xylene (2C)	78		53 - 140	12/16/21 09:58	12/16/21 21:20	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.1	U	9.2	3.1	mg/Kg	✳	12/06/21 22:27	12/11/21 13:22	1
Aluminum	28000		37	19	mg/Kg	✳	12/06/21 22:27	12/11/21 13:22	1
Arsenic	6.7		5.5	2.6	mg/Kg	✳	12/06/21 22:27	12/13/21 21:41	1
Barium	180		0.92	0.28	mg/Kg	✳	12/06/21 22:27	12/11/21 13:22	1
Beryllium	1.5		0.92	0.18	mg/Kg	✳	12/06/21 22:27	12/11/21 13:22	1
Cadmium	0.27	J	0.92	0.18	mg/Kg	✳	12/06/21 22:27	12/11/21 13:22	1
Calcium	7000		92	22	mg/Kg	✳	12/06/21 22:27	12/11/21 13:22	1
Chromium	39		2.8	0.33	mg/Kg	✳	12/06/21 22:27	12/11/21 13:22	1
Cobalt	22		0.92	0.27	mg/Kg	✳	12/06/21 22:27	12/11/21 13:22	1
Copper	46		3.7	1.4	mg/Kg	✳	12/06/21 22:27	12/11/21 13:22	1
Iron	40000		37	11	mg/Kg	✳	12/06/21 22:27	12/11/21 13:22	1
Lead	36		2.8	1.1	mg/Kg	✳	12/06/21 22:27	12/13/21 21:41	1
Magnesium	4500		18	7.4	mg/Kg	✳	12/06/21 22:27	12/11/21 13:22	1
Manganese	830		1.8	0.96	mg/Kg	✳	12/06/21 22:27	12/11/21 13:22	1
Nickel	39		1.8	0.48	mg/Kg	✳	12/06/21 22:27	12/11/21 13:22	1
Potassium	2800		92	37	mg/Kg	✳	12/06/21 22:27	12/11/21 13:22	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Client Sample ID: BH-03 (0-0.5)

Lab Sample ID: 410-65597-1

Date Collected: 12/03/21 13:35

Matrix: Solid

Date Received: 12/04/21 10:03

Percent Solids: 46.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	2.8	U	9.2	2.8	mg/Kg	☼	12/06/21 22:27	12/13/21 21:41	1
Silver	0.74	U ^5-	1.8	0.74	mg/Kg	☼	12/06/21 22:27	12/11/21 13:22	1
Sodium	200		180	85	mg/Kg	☼	12/06/21 22:27	12/11/21 13:22	1
Thallium	2.4	U	5.5	2.4	mg/Kg	☼	12/06/21 22:27	12/14/21 11:00	1
Zinc	170		3.7	1.8	mg/Kg	☼	12/06/21 22:27	12/11/21 13:22	1
Vanadium	65		1.8	0.79	mg/Kg	☼	12/06/21 22:27	12/11/21 13:22	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.18	F1	0.12	0.051	mg/Kg	☼	12/07/21 08:18	12/08/21 18:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	53.1		1.0	1.0	%			12/06/21 08:35	1

General Chemistry

Lab: Eurofins Northeast, Pittsburgh

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	36000	cn	2100	2100	mg/Kg	☼		12/13/21 20:02	1

Method: D422 - Grain Size

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.5	U	1.0	0.5	%			12/17/21 12:25	1
Sand	3.9		1.0	0.5	%			12/17/21 12:25	1
Silt	66.1		1.0	0.5	%			12/17/21 12:25	1
Clay	30.0		1.0	0.5	%			12/17/21 12:25	1
75 mm	100.0		1.0	0.5	% Passing			12/17/21 12:25	1
37.5 mm	100.0		1.0	0.5	% Passing			12/17/21 12:25	1
19 mm	100.0		1.0	0.5	% Passing			12/17/21 12:25	1
4.75 mm	100		1.0	0.5	% Passing			12/17/21 12:25	1
3.35 mm	99.9		1.0	0.5	% Passing			12/17/21 12:25	1
2.36 mm	99.6		1.0	0.5	% Passing			12/17/21 12:25	1
1.18 mm	99.4		1.0	0.5	% Passing			12/17/21 12:25	1
0.6 mm	99.4		1.0	0.5	% Passing			12/17/21 12:25	1
0.3 mm	99.3		1.0	0.5	% Passing			12/17/21 12:25	1
0.15 mm	98.4		1.0	0.5	% Passing			12/17/21 12:25	1
0.064 mm	94.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.05 mm	89.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.02 mm	68.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.005 mm	30.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.002 mm	21.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.001 mm	19.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.075 mm	96.1		1.0	0.5	% Passing			12/17/21 12:25	1

Client Sample ID: BH-03

Lab Sample ID: 410-65597-2

Date Collected: 12/03/21 13:30

Matrix: Water

Date Received: 12/04/21 10:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/12/21 02:17	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Client Sample ID: BH-03

Lab Sample ID: 410-65597-2

Date Collected: 12/03/21 13:30

Matrix: Water

Date Received: 12/04/21 10:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	0.20	U cn	1.0	0.20	ug/L			12/12/21 02:17	1
Ethylbenzene	0.40	U cn	1.0	0.40	ug/L			12/12/21 02:17	1
Styrene	0.30	U cn	5.0	0.30	ug/L			12/12/21 02:17	1
1,4-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/12/21 02:17	1
1,2-Dibromoethane	0.20	U cn	1.0	0.20	ug/L			12/12/21 02:17	1
1,2-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
4-Methyl-2-pentanone	0.50	U cn	10	0.50	ug/L			12/12/21 02:17	1
Methylcyclohexane	0.50	U cn	5.0	0.50	ug/L			12/12/21 02:17	1
Toluene	1.4	cn	1.0	0.20	ug/L			12/12/21 02:17	1
Chlorobenzene	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
Cyclohexane	1.0	U cn	5.0	1.0	ug/L			12/12/21 02:17	1
1,2,4-Trichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/12/21 02:17	1
1,4-Dioxane	29	U cn	250	29	ug/L			12/12/21 02:17	1
Dibromochloromethane	0.20	U cn	1.0	0.20	ug/L			12/12/21 02:17	1
Tetrachloroethene	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
cis-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
trans-1,2-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
Methyl tertiary butyl ether	0.20	U cn	1.0	0.20	ug/L			12/12/21 02:17	1
m&p-Xylene	2.0	U cn	5.0	2.0	ug/L			12/12/21 02:17	1
1,3-Dichlorobenzene	0.30	U cn	5.0	0.30	ug/L			12/12/21 02:17	1
Carbon tetrachloride	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
2-Hexanone	0.40	U cn	10	0.40	ug/L			12/12/21 02:17	1
Acetone	1.5	J cn	20	0.70	ug/L			12/12/21 02:17	1
Chloroform	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
Benzene	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
1,1,1-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
Bromomethane	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
Chloromethane	0.20	U cn	1.0	0.20	ug/L			12/12/21 02:17	1
Bromochloromethane	0.20	U cn	5.0	0.20	ug/L			12/12/21 02:17	1
Chloroethane	0.20	U cn	1.0	0.20	ug/L			12/12/21 02:17	1
Vinyl chloride	0.20	U cn	1.0	0.20	ug/L			12/12/21 02:17	1
Methylene Chloride	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
Carbon disulfide	0.30	U cn	5.0	0.30	ug/L			12/12/21 02:17	1
Bromoform	1.0	U cn	4.0	1.0	ug/L			12/12/21 02:17	1
Bromodichloromethane	0.20	U cn	1.0	0.20	ug/L			12/12/21 02:17	1
1,1-Dichloroethane	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
1,1-Dichloroethene	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
Trichlorofluoromethane	0.20	U cn	1.0	0.20	ug/L			12/12/21 02:17	1
Dichlorodifluoromethane	0.20	U cn	1.0	0.20	ug/L			12/12/21 02:17	1
Freon 113	0.30	U cn	10	0.30	ug/L			12/12/21 02:17	1
1,2-Dichloropropane	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
2-Butanone	0.50	U cn	10	0.50	ug/L			12/12/21 02:17	1
1,1,2-Trichloroethane	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
Trichloroethene	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
Methyl acetate	0.30	U cn	5.0	0.30	ug/L			12/12/21 02:17	1
1,1,2,2-Tetrachloroethane	0.30	U cn	1.0	0.30	ug/L			12/12/21 02:17	1
1,2,3-Trichlorobenzene	0.40	U cn	5.0	0.40	ug/L			12/12/21 02:17	1
o-Xylene	0.40	U cn	1.0	0.40	ug/L			12/12/21 02:17	1
1,2-Dichlorobenzene	0.20	U cn	5.0	0.20	ug/L			12/12/21 02:17	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Client Sample ID: BH-03

Lab Sample ID: 410-65597-2

Date Collected: 12/03/21 13:30

Matrix: Water

Date Received: 12/04/21 10:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.30	U cn	5.0	0.30	ug/L			12/12/21 02:17	1
Isopropylbenzene	0.20	U cn	5.0	0.20	ug/L			12/12/21 02:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102	cn	80 - 120					12/12/21 02:17	1
4-Bromofluorobenzene (Surr)	101	cn	80 - 120					12/12/21 02:17	1
Dibromofluoromethane (Surr)	97	cn	80 - 120					12/12/21 02:17	1
Toluene-d8 (Surr)	111	cn	80 - 120					12/12/21 02:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
1,2,4,5-Tetrachlorobenzene	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
2,2'-oxybis[1-chloropropane]	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
2,3,4,6-Tetrachlorophenol	1.0	U cn	5.0	1.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
2,4,5-Trichlorophenol	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
2,4,6-Trichlorophenol	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
2,4-Dichlorophenol	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
2,4-Dimethylphenol	3.0	U cn	10	3.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
2,4-Dinitrophenol	14	U cn	30	14	ug/L		12/09/21 10:13	12/13/21 19:28	1
2,4-Dinitrotoluene	1.0	U cn	5.0	1.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
2,6-Dinitrotoluene	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
2-Chloronaphthalene	0.40	U cn	1.0	0.40	ug/L		12/09/21 10:13	12/13/21 19:28	1
2-Chlorophenol	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
2-Methylnaphthalene	0.10	U cn	0.50	0.10	ug/L		12/09/21 10:13	12/13/21 19:28	1
2-Methylphenol	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
2-Nitroaniline	1.0	U cn	5.0	1.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
2-Nitrophenol	1.0	U cn	5.0	1.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
3,3'-Dichlorobenzidine	4.0	U cn	10	4.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
3-Nitroaniline	2.0	U cn	5.0	2.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
4,6-Dinitro-2-methylphenol	8.1	U cn	21	8.1	ug/L		12/09/21 10:13	12/13/21 19:28	1
4-Bromophenyl-phenylether	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
4-Chloro-3-methylphenol	1.0	U cn	5.0	1.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
4-Methylphenol	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
4-Nitroaniline	0.91	U cn	3.0	0.91	ug/L		12/09/21 10:13	12/13/21 19:28	1
4-Nitrophenol	10	U cn	30	10	ug/L		12/09/21 10:13	12/13/21 19:28	1
Acenaphthene	0.10	U cn	0.50	0.10	ug/L		12/09/21 10:13	12/13/21 19:28	1
Acenaphthylene	0.10	U cn	0.50	0.10	ug/L		12/09/21 10:13	12/13/21 19:28	1
Acetophenone	1.0	U cn	5.0	1.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
Anthracene	0.10	U cn	0.50	0.10	ug/L		12/09/21 10:13	12/13/21 19:28	1
Atrazine	1.0	U cn	5.0	1.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
Benzaldehyde	1.0	U cn	5.0	1.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
Benzo[a]anthracene	0.10	U cn	0.50	0.10	ug/L		12/09/21 10:13	12/13/21 19:28	1
Benzo[a]pyrene	0.11	U cn	0.50	0.11	ug/L		12/09/21 10:13	12/13/21 19:28	1
Benzo[b]fluoranthene	0.10	U cn	0.50	0.10	ug/L		12/09/21 10:13	12/13/21 19:28	1
Benzo[g,h,i]perylene	0.10	U cn	0.50	0.10	ug/L		12/09/21 10:13	12/13/21 19:28	1
Benzo[k]fluoranthene	0.10	U cn	0.50	0.10	ug/L		12/09/21 10:13	12/13/21 19:28	1
Bis(2-chloroethoxy)methane	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
Bis(2-chloroethyl)ether	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
Bis(2-ethylhexyl) phthalate	2.0	U cn	5.0	2.0	ug/L		12/09/21 10:13	12/13/21 19:28	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Client Sample ID: BH-03

Lab Sample ID: 410-65597-2

Date Collected: 12/03/21 13:30

Matrix: Water

Date Received: 12/04/21 10:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butylbenzylphthalate	2.0	U cn	5.0	2.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
Caprolactam	3.0	U cn	7.1	3.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
Carbazole	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
Chrysene	0.10	U cn	0.50	0.10	ug/L		12/09/21 10:13	12/13/21 19:28	1
Di-n-butyl phthalate	8.8	B *+ cn	5.0	2.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
Di-n-octyl phthalate	5.0	U cn	11	5.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
Dibenz(a,h)anthracene	0.10	U cn	0.50	0.10	ug/L		12/09/21 10:13	12/13/21 19:28	1
Dibenzofuran	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
Diethyl phthalate	2.0	U cn	5.0	2.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
Dimethyl phthalate	2.0	U cn	5.0	2.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
Fluoranthene	0.10	U cn	0.50	0.10	ug/L		12/09/21 10:13	12/13/21 19:28	1
Fluorene	0.12	U cn	0.50	0.12	ug/L		12/09/21 10:13	12/13/21 19:28	1
Hexachlorobenzene	0.11	U cn	0.50	0.11	ug/L		12/09/21 10:13	12/13/21 19:28	1
Hexachlorobutadiene	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
Hexachlorocyclopentadiene	5.0	U cn	11	5.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
Hexachloroethane	0.50	U cn	5.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
Indeno[1,2,3-cd]pyrene	0.11	U cn	0.50	0.11	ug/L		12/09/21 10:13	12/13/21 19:28	1
Isophorone	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
N-Nitrosodi-n-propylamine	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
N-Nitrosodiphenylamine	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
Naphthalene	0.10	U cn	0.50	0.10	ug/L		12/09/21 10:13	12/13/21 19:28	1
Nitrobenzene	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
Phenanthrene	0.11	U cn	0.50	0.11	ug/L		12/09/21 10:13	12/13/21 19:28	1
Phenol	0.50	U cn	2.0	0.50	ug/L		12/09/21 10:13	12/13/21 19:28	1
Pyrene	0.10	U cn	0.50	0.10	ug/L		12/09/21 10:13	12/13/21 19:28	1
Pentachlorophenol	1.0	U cn	5.0	1.0	ug/L		12/09/21 10:13	12/13/21 19:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	87	cn	31 - 119				12/09/21 10:13	12/13/21 19:28	1
Nitrobenzene-d5 (Surr)	77	cn	22 - 117				12/09/21 10:13	12/13/21 19:28	1
2-Fluorophenol (Surr)	45	cn	10 - 78				12/09/21 10:13	12/13/21 19:28	1
2-Fluorobiphenyl (Surr)	72	cn	35 - 100				12/09/21 10:13	12/13/21 19:28	1
2,4,6-Tribromophenol (Surr)	83	cn	10 - 150				12/09/21 10:13	12/13/21 19:28	1
Phenol-d5 (Surr)	32	cn	10 - 67				12/09/21 10:13	12/13/21 19:28	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (2C)	0.0020	U *1 cn	0.020	0.0020	ug/L		12/08/21 08:43	12/09/21 11:45	1
alpha-BHC (1C)	0.0030	U *1 cn	0.020	0.0030	ug/L		12/08/21 08:43	12/09/21 11:45	1
alpha-Chlordane (1C)	0.0030	U *1 cn	0.020	0.0030	ug/L		12/08/21 08:43	12/09/21 11:45	1
beta-BHC (1C)	0.0034	U cn	0.020	0.0034	ug/L		12/08/21 08:43	12/09/21 11:45	1
delta-BHC (1C)	0.0034	U *1 cn	0.020	0.0034	ug/L		12/08/21 08:43	12/09/21 11:45	1
Dieldrin (1C)	0.0054	U *1 cn	0.030	0.0054	ug/L		12/08/21 08:43	12/09/21 11:45	1
Endosulfan I (1C)	0.0044	U *1 cn	0.020	0.0044	ug/L		12/08/21 08:43	12/09/21 11:45	1
Endosulfan II (1C)	0.015	U *1 cn	0.041	0.015	ug/L		12/08/21 08:43	12/09/21 11:45	1
Endosulfan sulfate (1C)	0.0059	U cn	0.030	0.0059	ug/L		12/08/21 08:43	12/09/21 11:45	1
Endrin (1C)	0.0082	U *1 cn	0.030	0.0082	ug/L		12/08/21 08:43	12/09/21 11:45	1
Endrin aldehyde (1C)	0.020	U *1 cn	0.10	0.020	ug/L		12/08/21 08:43	12/09/21 11:45	1
Endrin ketone (1C)	0.0051	U *1 cn	0.030	0.0051	ug/L		12/08/21 08:43	12/09/21 11:45	1
gamma-BHC (Lindane) (1C)	0.0020	U *1 cn	0.020	0.0020	ug/L		12/08/21 08:43	12/09/21 11:45	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Client Sample ID: BH-03

Lab Sample ID: 410-65597-2

Date Collected: 12/03/21 13:30

Matrix: Water

Date Received: 12/04/21 10:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-Chlordane (1C)	0.0071	U *1 cn	0.041	0.0071	ug/L		12/08/21 08:43	12/09/21 11:45	1
Heptachlor (1C)	0.0020	U cn	0.020	0.0020	ug/L		12/08/21 08:43	12/09/21 11:45	1
Heptachlor epoxide (1C)	0.0023	U *1 cn	0.020	0.0023	ug/L		12/08/21 08:43	12/09/21 11:45	1
Methoxychlor (1C)	0.030	U cn	0.11	0.030	ug/L		12/08/21 08:43	12/09/21 11:45	1
Toxaphene (1C)	0.30	U cn	1.0	0.30	ug/L		12/08/21 08:43	12/09/21 11:45	1
p,p'-DDD (1C)	0.0051	U *1 cn	0.030	0.0051	ug/L		12/08/21 08:43	12/09/21 11:45	1
p,p'-DDE (1C)	0.0051	U *1 cn	0.030	0.0051	ug/L		12/08/21 08:43	12/09/21 11:45	1
p,p'-DDT (1C)	0.0053	U *1 cn	0.030	0.0053	ug/L		12/08/21 08:43	12/09/21 11:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	68	cn	20 - 149				12/08/21 08:43	12/09/21 11:45	1
DCB Decachlorobiphenyl (Surr) (2C)	60	cn	20 - 149				12/08/21 08:43	12/09/21 11:45	1
Tetrachloro-m-xylene (Surr) (1C)	75	cn	20 - 129				12/08/21 08:43	12/09/21 11:45	1
Tetrachloro-m-xylene (Surr) (2C)	63	cn	20 - 129				12/08/21 08:43	12/09/21 11:45	1

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.050	0.016	mg/L		12/06/21 22:06	12/10/21 12:23	1
Aluminum	0.28	J	0.30	0.15	mg/L		12/06/21 22:06	12/10/21 12:23	1
Arsenic	0.016	U	0.050	0.016	mg/L		12/06/21 22:06	12/10/21 12:23	1
Barium	0.038		0.0050	0.0010	mg/L		12/06/21 22:06	12/10/21 12:23	1
Beryllium	0.0010	U	0.0050	0.0010	mg/L		12/06/21 22:06	12/10/21 12:23	1
Cadmium	0.0010	U	0.0050	0.0010	mg/L		12/06/21 22:06	12/10/21 12:23	1
Calcium	40		0.50	0.096	mg/L		12/06/21 22:06	12/10/21 12:23	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/06/21 22:06	12/10/21 12:23	1
Cobalt	0.0015	U	0.0050	0.0015	mg/L		12/06/21 22:06	12/10/21 12:23	1
Copper	0.012	U	0.020	0.012	mg/L		12/06/21 22:06	12/10/21 12:23	1
Iron	0.48		0.20	0.040	mg/L		12/06/21 22:06	12/10/21 12:23	1
Lead	0.0071	U	0.015	0.0071	mg/L		12/06/21 22:06	12/10/21 12:23	1
Magnesium	10		0.10	0.040	mg/L		12/06/21 22:06	12/10/21 12:23	1
Manganese	0.042		0.010	0.0030	mg/L		12/06/21 22:06	12/10/21 12:23	1
Nickel	0.0021	U ^3+	0.010	0.0021	mg/L		12/06/21 22:06	12/10/21 12:23	1
Potassium	2.8		0.50	0.20	mg/L		12/06/21 22:06	12/10/21 12:23	1
Selenium	0.016	U	0.050	0.016	mg/L		12/06/21 22:06	12/10/21 21:17	1
Silver	0.0050	U ^5-	0.010	0.0050	mg/L		12/06/21 22:06	12/10/21 12:23	1
Sodium	14		1.0	0.24	mg/L		12/06/21 22:06	12/10/21 12:23	1
Thallium	0.0081	U	0.030	0.0081	mg/L		12/06/21 22:06	12/10/21 12:23	1
Zinc	0.0056	J	0.020	0.0037	mg/L		12/06/21 22:06	12/10/21 12:23	1
Vanadium	0.0019	U	0.010	0.0019	mg/L		12/06/21 22:06	12/10/21 12:23	1

Method: 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.052	0.016	mg/L		12/10/21 08:55	12/11/21 10:47	1
Aluminum	0.16	U	0.31	0.16	mg/L		12/10/21 08:55	12/10/21 10:58	1
Arsenic	0.016	U	0.052	0.016	mg/L		12/10/21 08:55	12/10/21 10:58	1
Barium	0.035		0.0052	0.0010	mg/L		12/10/21 08:55	12/10/21 10:58	1
Beryllium	0.0010	U	0.0052	0.0010	mg/L		12/10/21 08:55	12/10/21 10:58	1
Cadmium	0.0010	U	0.0052	0.0010	mg/L		12/10/21 08:55	12/10/21 10:58	1
Calcium	40		0.52	0.099	mg/L		12/10/21 08:55	12/10/21 10:58	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/10/21 08:55	12/10/21 10:58	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Client Sample ID: BH-03

Lab Sample ID: 410-65597-2

Date Collected: 12/03/21 13:30

Matrix: Water

Date Received: 12/04/21 10:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.0015	U	0.0052	0.0015	mg/L		12/10/21 08:55	12/10/21 10:58	1
Copper	0.012	U	0.021	0.012	mg/L		12/10/21 08:55	12/10/21 10:58	1
Iron	0.053	J	0.21	0.041	mg/L		12/10/21 08:55	12/10/21 10:58	1
Lead	0.0073	U ^3+	0.015	0.0073	mg/L		12/10/21 08:55	12/10/21 10:58	1
Magnesium	10	^5-	0.10	0.041	mg/L		12/10/21 08:55	12/10/21 10:58	1
Manganese	0.026		0.010	0.0031	mg/L		12/10/21 08:55	12/10/21 10:58	1
Nickel	0.0022	U	0.010	0.0022	mg/L		12/10/21 08:55	12/10/21 10:58	1
Potassium	2.8		0.52	0.21	mg/L		12/10/21 08:55	12/11/21 16:19	1
Selenium	0.016	U	0.052	0.016	mg/L		12/10/21 08:55	12/10/21 10:58	1
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/10/21 08:55	12/10/21 10:58	1
Sodium	14		1.0	0.25	mg/L		12/10/21 08:55	12/10/21 10:58	1
Thallium	0.0083	U	0.031	0.0083	mg/L		12/10/21 08:55	12/10/21 10:58	1
Zinc	0.0047	J	0.021	0.0038	mg/L		12/10/21 08:55	12/10/21 10:58	1
Vanadium	0.0020	U	0.010	0.0020	mg/L		12/10/21 08:55	12/10/21 10:58	1

Method: 7470A - Mercury (CVAA)

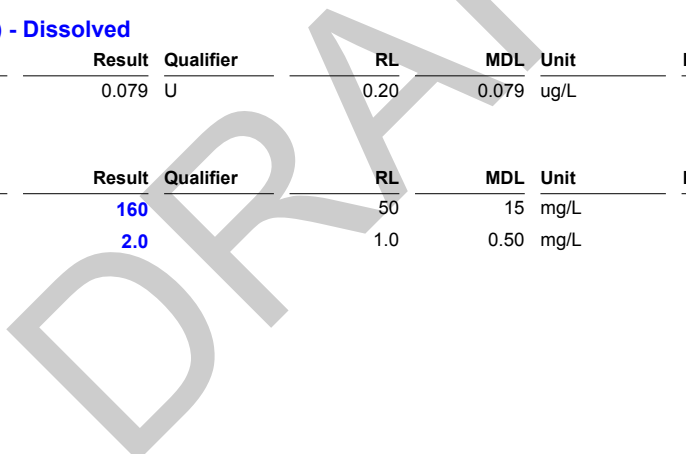
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/07/21 05:49	12/08/21 12:33	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/07/21 05:49	12/08/21 13:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	160		50	15	mg/L			12/09/21 10:26	5
Total Organic Carbon	2.0		1.0	0.50	mg/L			12/14/21 03:41	1



0.75 Inch	555.54	555.54
#4	503.10	503.04
#6	482.41	482.37
#8	430.03	429.43
PAN	564.76	385.40

Comments: _____

Sieve Size (Mr)	Tare+Sample Wt.(g)	Tare Weight (g)
#16	452.12	452.01
#30	293.66	293.65
#50	265.72	265.69
#100	318.109	318.25
#200	217.84	216.67
PAN	385.42	385.33

Grain Size Classification	
% Gravel	0.03
% Sand	3.92
% Silt	66.05
% Clay	30
% Clay + Silt	—

Balance ID#: 18958 Oven ID# 18961
 Oven Date/Time/Temp In: 1-1-22 / 0825 / 104° Oven Date/Time/Temp Out: 1-2-22 / 0930 / 110

Moisture

Tare Weight (g)	Sample Weight (g)	Oven Dry Wt. (g)
.8019	5.2642	5.9789

Init./Emp. #: 855/237

Bulk Density

Tare Weight (g)	Sample Weight (g)	DI H ₂ O+SpLe Wt. (g)
68.2345	6.3115	103.5761

Init./Emp. #: VS41049

Hydrometer Readings Sample Wt. 50.01 Hydrometer ID #: 2376666 Init./Emp #: 855/237

Time	Temp	Reading
2 minutes	21°	1.027
5 minutes	21°	1.024
15 minutes	21°	1.0201.021
30 minutes	21°	1.018
60 minutes	21°	1.015
250 minutes	21°	1.011
1440 minutes	21°	1.010

Comments: _____

Oven ID#: 168
 Oven Date/Time/Temp In: 1-2-22 / 1
 Oven Date/Time/Temp Out: 1-3-22 / 1

Particle Size Distribution

Sample: 410-65597-A-1	Date: 12/17/21
	Init/Emp #: VS41049

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	538.72	538.72	0.00	100
1.5 inch	559.22	559.22	0.00	100
0.75 inch	555.54	555.54	0.00	100
# 4	503.10	503.04	0.06	99.96666778
# 6	482.41	482.37	0.04	99.944463
# 8	430.03	429.43	0.60	99.6112407
PAN	564.76	385.40	179.36	

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	452.12	452.01	0.11	99.3884493
# 30	293.66	293.65	0.01	99.3681955
# 50	265.72	265.69	0.03	99.3074343
# 100	318.69	318.25	0.44	98.4162687
# 200	217.84	216.67	1.17	96.0465785
PAN	385.42	385.33	0.09	

Moisture			
Tare Weight	Sample Weight	Oven Dry Weight	Ratio
0.8019	5.2642	5.9789	0.9834

Bulk Density			
Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol H2O
68.2345	6.3115	103.5761	97.2646
			2.7354

Hydrometer Readings	Sample Weight	50.01 Reading	Hydrometer #:
Time	Temp	Reading	Corr. Rdnng.
2 minutes	21.0	1.0270	1.023
5 minutes	21.0	1.0240	1.020
15 minutes	21.0	1.0210	1.017
30 minutes	21.0	1.0180	1.014
60 minutes	21.0	1.0150	1.011
250 minutes	21.0	1.0110	1.007
1440 minutes	21.0	1.0100	1.006
			2.0015
			0.0323
			0.0213
			0.0127
			0.0093
			0.0068
			0.0035

Particle Size Distribution

Sample: 410-65597-A-1	Date: 12/17/21	Init/Emp # VS41049
-----------------------	----------------	--------------------

Percent Passing	Particle Size
100.00	75
100.00	37.5
100.00	19
99.97	4.75
99.94	3.35
99.61	2.36
99.39	1.18
99.37	0.6
99.31	0.3
98.42	0.15
96.05	0.075
80.68	0.03231
69.96	0.02130
59.23	0.01272
48.51	0.00933
37.78	0.00682
23.49	0.00349
19.91	0.00147

- * Used for line 1
- ** Used for line 2
- *** Used for lines 1 and 2
- + Calculated from line 1
- ++ Calculated from line 2

Log(particle size)
-1.124939
-1.490659
-1.671523
-1.895391
-2.030249
-2.166161
-2.457455
-2.832859

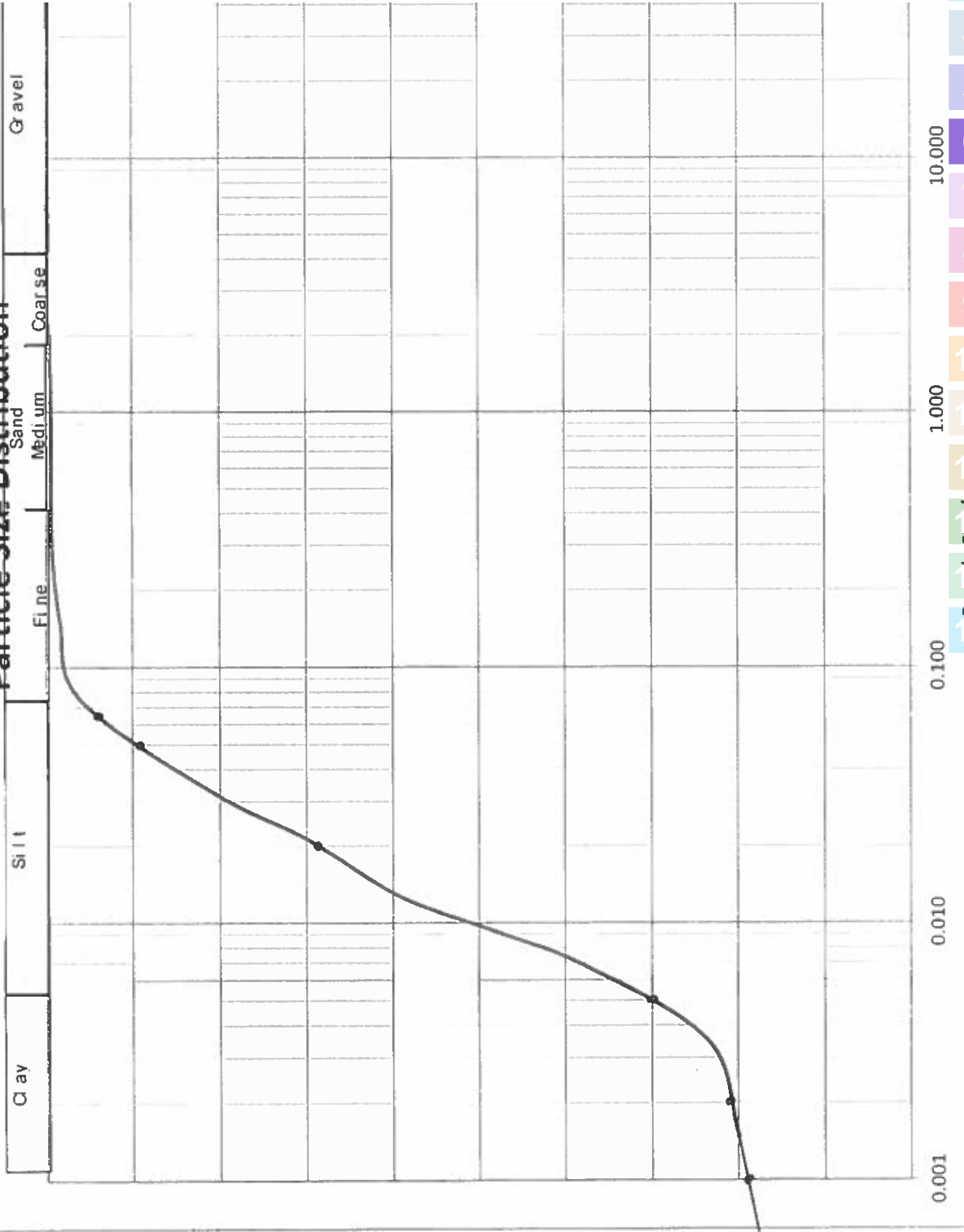
Line 1 Regr
Constant
Std Err of Y Est
R Squared
No. of Observatio
Degrees of Freeo
X Coefficient(s)
Std Err of Coef.

Line 2 Regr
Constant
Std Err of Y Est
R Squared
No. of Observatio
Degrees of Freeo
X Coefficient(s)
Std Err of Coef.

Particle Size Ca
0.064 94
0.05 89
0.02 68
0.005 30
0.002 21
0.001 19



10-65597-A- Particle Size Distribution



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (54-135)	BFB (50-131)	DBFM (50-141)	TOL (52-141)
410-65597-1	BH-03 (0-0.5)	100 cn	86 cn	101 cn	109 cn
LCS 410-203772/5	Lab Control Sample	105	103	103	102
LCSD 410-203772/6	Lab Control Sample Dup	102	99	101	102
MB 410-203772/8	Method Blank	103	100	100	102

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-65597-2	BH-03	102 cn	101 cn	97 cn	111 cn
LCS 410-204249/4	Lab Control Sample	102	103	97	111
MB 410-204249/6	Method Blank	102	101	98	112

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (45-108)	NBZ (32-97)	2FP (26-96)	FBP (39-100)	TBP (13-121)	PHL (27-104)
410-65597-1	BH-03 (0-0.5)	65 cn	49 cn	59 cn	59 cn	59 cn	56 cn
LCS 410-204434/2-A	Lab Control Sample	88	65	74	75	79	72
MB 410-204434/1-A	Method Blank	93	69	75	74	78	72

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (31-119)	NBZ (22-117)	2FP (10-78)	FBP (35-100)	TBP (10-150)	PHL (10-67)
410-65597-2	BH-03	87 cn	77 cn	45 cn	72 cn	83 cn	32 cn

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (31-119)	NBZ (22-117)	2FP (10-78)	FBP (35-100)	TBP (10-150)	PHL (10-67)
LCS 410-203249/2-A	Lab Control Sample	92	83	55	81	101	43
MB 410-203249/1-A	Method Blank	88	86	46	75	90	32

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (54-143)	DCB2 (54-143)	TCX1 (20-131)	TCX2 (20-131)
410-65597-1	BH-03 (0-0.5)	82 cn	79 cn	69 cn	86 cn
LCS 410-206012/2-A	Lab Control Sample	80	85	58	60
LCS 410-206012/2-A - DL	Lab Control Sample	74	74	58	55
MB 410-206012/1-A	Method Blank	81	85	62	65

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (20-149)	DCB2 (20-149)	TCX1 (20-129)	TCX2 (20-129)
410-65597-2	BH-03	68 cn	60 cn	75 cn	63 cn
LCS 410-202747/2-A	Lab Control Sample	87	80	82	72
LCS 410-202747/3-A	Lab Control Sample Dup	12 S1-	11 S1-	56	51
MB 410-202747/1-A	Method Blank	85	80	85	75

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (45-143)	DCB2 (45-143)	TCX1 (53-140)	TCX2 (53-140)
410-65597-1	BH-03 (0-0.5)	73	75	77	78
LCS 410-206011/2-A	Lab Control Sample		95		103
MB 410-206011/1-A	Method Blank		94		102

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA
TCX = Tetrachloro-m-xylene

Job ID: 410-65597-1

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DRAFT

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: MB 410-203772/8

Matrix: Solid

Analysis Batch: 203772

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	0.40	U	5.0	0.40	ug/Kg			12/10/21 12:22	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
Ethylbenzene	0.40	U	5.0	0.40	ug/Kg			12/10/21 12:22	1
Styrene	0.40	U	5.0	0.40	ug/Kg			12/10/21 12:22	1
1,4-Dichlorobenzene	0.40	U	5.0	0.40	ug/Kg			12/10/21 12:22	1
1,2-Dibromoethane	0.40	U	5.0	0.40	ug/Kg			12/10/21 12:22	1
1,2-Dichloroethane	0.60	U	5.0	0.60	ug/Kg			12/10/21 12:22	1
4-Methyl-2-pentanone	1.0	U	10	1.0	ug/Kg			12/10/21 12:22	1
Methylcyclohexane	0.60	U	5.0	0.60	ug/Kg			12/10/21 12:22	1
Toluene	0.60	U	5.0	0.60	ug/Kg			12/10/21 12:22	1
Chlorobenzene	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
Cyclohexane	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
1,2,4-Trichlorobenzene	5.0	U	10	5.0	ug/Kg			12/10/21 12:22	1
1,4-Dioxane	37	U	250	37	ug/Kg			12/10/21 12:22	1
Dibromochloromethane	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
Tetrachloroethene	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
cis-1,2-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
trans-1,2-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
Methyl tertiary butyl ether	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
m&p-Xylene	1.0	U	5.0	1.0	ug/Kg			12/10/21 12:22	1
1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
Carbon tetrachloride	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
2-Hexanone	1.0	U	10	1.0	ug/Kg			12/10/21 12:22	1
Acetone	6.10	J	20	6.0	ug/Kg			12/10/21 12:22	1
Chloroform	0.60	U	5.0	0.60	ug/Kg			12/10/21 12:22	1
Benzene	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
1,1,1-Trichloroethane	0.60	U	5.0	0.60	ug/Kg			12/10/21 12:22	1
Bromomethane	0.70	U	5.0	0.70	ug/Kg			12/10/21 12:22	1
Chloromethane	0.60	U	5.0	0.60	ug/Kg			12/10/21 12:22	1
Bromochloromethane	0.60	U	5.0	0.60	ug/Kg			12/10/21 12:22	1
Chloroethane	1.0	U	5.0	1.0	ug/Kg			12/10/21 12:22	1
Vinyl chloride	0.60	U	5.0	0.60	ug/Kg			12/10/21 12:22	1
Methylene Chloride	2.0	U	5.0	2.0	ug/Kg			12/10/21 12:22	1
Carbon disulfide	0.60	U	5.0	0.60	ug/Kg			12/10/21 12:22	1
Bromoform	5.0	U	10	5.0	ug/Kg			12/10/21 12:22	1
Bromodichloromethane	0.40	U	5.0	0.40	ug/Kg			12/10/21 12:22	1
1,1-Dichloroethane	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
1,1-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
Trichlorofluoromethane	0.70	U	5.0	0.70	ug/Kg			12/10/21 12:22	1
Dichlorodifluoromethane	0.60	U	5.0	0.60	ug/Kg			12/10/21 12:22	1
Freon 113	0.60	U	10	0.60	ug/Kg			12/10/21 12:22	1
1,2-Dichloropropane	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
2-Butanone	2.0	U	10	2.0	ug/Kg			12/10/21 12:22	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
Trichloroethene	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
Methyl acetate	1.0	U	5.0	1.0	ug/Kg			12/10/21 12:22	1
1,1,2,2-Tetrachloroethane	0.40	U	5.0	0.40	ug/Kg			12/10/21 12:22	1
1,2,3-Trichlorobenzene	5.0	U	10	5.0	ug/Kg			12/10/21 12:22	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: MB 410-203772/8

Matrix: Solid

Analysis Batch: 203772

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	0.40	U	5.0	0.40	ug/Kg			12/10/21 12:22	1
1,2-Dichlorobenzene	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
1,2-Dibromo-3-Chloropropane	0.50	U	5.0	0.50	ug/Kg			12/10/21 12:22	1
Isopropylbenzene	0.40	U	5.0	0.40	ug/Kg			12/10/21 12:22	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	103		54 - 135		12/10/21 12:22	1
4-Bromofluorobenzene (Surr)	100		50 - 131		12/10/21 12:22	1
Dibromofluoromethane (Surr)	100		50 - 141		12/10/21 12:22	1
Toluene-d8 (Surr)	102		52 - 141		12/10/21 12:22	1

Lab Sample ID: LCS 410-203772/5

Matrix: Solid

Analysis Batch: 203772

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,3-Dichloropropene	20.0	20.6		ug/Kg		103	66 - 120
trans-1,3-Dichloropropene	20.0	20.7		ug/Kg		104	68 - 122
Ethylbenzene	20.0	20.8		ug/Kg		104	78 - 120
Styrene	20.0	19.8		ug/Kg		99	76 - 120
1,4-Dichlorobenzene	20.0	19.9		ug/Kg		100	80 - 120
1,2-Dibromoethane	20.0	20.0		ug/Kg		100	76 - 120
1,2-Dichloroethane	20.0	20.4		ug/Kg		102	71 - 128
4-Methyl-2-pentanone	250	265		ug/Kg		106	67 - 128
Methylcyclohexane	20.0	20.7		ug/Kg		104	61 - 124
Toluene	20.0	20.4		ug/Kg		102	80 - 120
Chlorobenzene	20.0	20.3		ug/Kg		102	80 - 120
Cyclohexane	20.0	21.7		ug/Kg		108	58 - 126
1,2,4-Trichlorobenzene	20.0	20.0		ug/Kg		100	56 - 130
1,4-Dioxane	500	475		ug/Kg		95	62 - 131
Dibromochloromethane	20.0	19.9		ug/Kg		100	69 - 125
Tetrachloroethene	20.0	20.3		ug/Kg		102	73 - 120
cis-1,2-Dichloroethene	20.0	22.1		ug/Kg		110	80 - 125
trans-1,2-Dichloroethene	20.0	20.9		ug/Kg		105	80 - 126
Methyl tertiary butyl ether	20.0	22.0		ug/Kg		110	72 - 120
m&p-Xylene	40.0	41.6		ug/Kg		104	80 - 120
1,3-Dichlorobenzene	20.0	19.8		ug/Kg		99	75 - 120
Carbon tetrachloride	20.0	20.7		ug/Kg		104	64 - 134
2-Hexanone	250	272		ug/Kg		109	54 - 140
Acetone	250	261		ug/Kg		105	41 - 150
Chloroform	20.0	20.7		ug/Kg		103	80 - 120
Benzene	20.0	21.5		ug/Kg		107	80 - 120
1,1,1-Trichloroethane	20.0	20.7		ug/Kg		103	69 - 123
Bromomethane	20.0	20.4		ug/Kg		102	45 - 140
Chloromethane	20.0	21.6		ug/Kg		108	56 - 120
Bromochloromethane	20.0	21.1		ug/Kg		106	72 - 124
Chloroethane	20.0	21.2		ug/Kg		106	43 - 135
Vinyl chloride	20.0	22.5		ug/Kg		113	52 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: LCS 410-203772/5

Matrix: Solid

Analysis Batch: 203772

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	21.5		ug/Kg		107	76 - 122
Carbon disulfide	20.0	24.1		ug/Kg		120	64 - 133
Bromoform	20.0	19.8		ug/Kg		99	51 - 127
Bromodichloromethane	20.0	21.1		ug/Kg		106	70 - 120
1,1-Dichloroethane	20.0	21.4		ug/Kg		107	79 - 120
1,1-Dichloroethene	20.0	22.1		ug/Kg		110	73 - 129
Trichlorofluoromethane	20.0	19.8		ug/Kg		99	55 - 134
Dichlorodifluoromethane	20.0	22.8		ug/Kg		114	21 - 127
Freon 113	20.0	23.1		ug/Kg		115	64 - 135
1,2-Dichloropropane	20.0	21.3		ug/Kg		107	80 - 120
2-Butanone	250	270		ug/Kg		108	57 - 128
1,1,2-Trichloroethane	20.0	21.4		ug/Kg		107	80 - 120
Trichloroethene	20.0	20.8		ug/Kg		104	80 - 120
Methyl acetate	20.0	22.2		ug/Kg		111	67 - 128
1,1,1,2-Tetrachloroethane	20.0	21.1		ug/Kg		106	69 - 125
1,2,3-Trichlorobenzene	20.0	20.1		ug/Kg		100	57 - 131
o-Xylene	20.0	20.4		ug/Kg		102	75 - 120
1,2-Dichlorobenzene	20.0	20.0		ug/Kg		100	76 - 120
1,2-Dibromo-3-Chloropropane	20.0	18.8		ug/Kg		94	48 - 134
Isopropylbenzene	20.0	21.2		ug/Kg		106	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		54 - 135
4-Bromofluorobenzene (Surr)	103		50 - 131
Dibromofluoromethane (Surr)	103		50 - 141
Toluene-d8 (Surr)	102		52 - 141

Lab Sample ID: LCSD 410-203772/6

Matrix: Solid

Analysis Batch: 203772

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	20.0	20.1		ug/Kg		101	66 - 120	2	30
trans-1,3-Dichloropropene	20.0	20.5		ug/Kg		103	68 - 122	1	30
Ethylbenzene	20.0	20.8		ug/Kg		104	78 - 120	0	30
Styrene	20.0	19.8		ug/Kg		99	76 - 120	0	30
1,4-Dichlorobenzene	20.0	20.4		ug/Kg		102	80 - 120	3	30
1,2-Dibromoethane	20.0	19.6		ug/Kg		98	76 - 120	2	30
1,2-Dichloroethane	20.0	20.1		ug/Kg		100	71 - 128	2	30
4-Methyl-2-pentanone	250	241		ug/Kg		97	67 - 128	9	30
Methylcyclohexane	20.0	20.3		ug/Kg		101	61 - 124	2	30
Toluene	20.0	20.4		ug/Kg		102	80 - 120	0	30
Chlorobenzene	20.0	20.4		ug/Kg		102	80 - 120	0	30
Cyclohexane	20.0	20.9		ug/Kg		104	58 - 126	4	30
1,2,4-Trichlorobenzene	20.0	20.4		ug/Kg		102	56 - 130	2	30
1,4-Dioxane	500	515		ug/Kg		103	62 - 131	8	30
Dibromochloromethane	20.0	19.6		ug/Kg		98	69 - 125	2	30
Tetrachloroethene	20.0	20.1		ug/Kg		100	73 - 120	1	30

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: LCSD 410-203772/6

Matrix: Solid

Analysis Batch: 203772

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Added	Result	Qualifier				Limits		Limit
cis-1,2-Dichloroethene	20.0	21.3		ug/Kg		106	80 - 125	4	30
trans-1,2-Dichloroethene	20.0	20.6		ug/Kg		103	80 - 126	2	30
Methyl tertiary butyl ether	20.0	21.0		ug/Kg		105	72 - 120	5	30
m&p-Xylene	40.0	41.5		ug/Kg		104	80 - 120	0	30
1,3-Dichlorobenzene	20.0	20.2		ug/Kg		101	75 - 120	2	30
Carbon tetrachloride	20.0	19.9		ug/Kg		100	64 - 134	4	30
2-Hexanone	250	249		ug/Kg		99	54 - 140	9	30
Acetone	250	276		ug/Kg		110	41 - 150	5	30
Chloroform	20.0	20.3		ug/Kg		101	80 - 120	2	30
Benzene	20.0	21.0		ug/Kg		105	80 - 120	2	30
1,1,1-Trichloroethane	20.0	19.8		ug/Kg		99	69 - 123	4	30
Bromomethane	20.0	19.9		ug/Kg		100	45 - 140	2	30
Chloromethane	20.0	21.5		ug/Kg		108	56 - 120	0	30
Bromochloromethane	20.0	20.2		ug/Kg		101	72 - 124	4	30
Chloroethane	20.0	20.6		ug/Kg		103	43 - 135	3	30
Vinyl chloride	20.0	21.3		ug/Kg		107	52 - 120	6	30
Methylene Chloride	20.0	21.2		ug/Kg		106	76 - 122	1	30
Carbon disulfide	20.0	23.1		ug/Kg		115	64 - 133	4	30
Bromoform	20.0	19.0		ug/Kg		95	51 - 127	4	30
Bromodichloromethane	20.0	20.6		ug/Kg		103	70 - 120	2	30
1,1-Dichloroethane	20.0	21.0		ug/Kg		105	79 - 120	2	30
1,1-Dichloroethene	20.0	21.3		ug/Kg		106	73 - 129	4	30
Trichlorofluoromethane	20.0	18.7		ug/Kg		94	55 - 134	5	30
Dichlorodifluoromethane	20.0	22.6		ug/Kg		113	21 - 127	1	30
Freon 113	20.0	22.4		ug/Kg		112	64 - 135	3	30
1,2-Dichloropropane	20.0	20.8		ug/Kg		104	80 - 120	2	30
2-Butanone	250	282		ug/Kg		113	57 - 128	4	30
1,1,2-Trichloroethane	20.0	20.7		ug/Kg		103	80 - 120	3	30
Trichloroethene	20.0	20.3		ug/Kg		102	80 - 120	2	30
Methyl acetate	20.0	20.3		ug/Kg		101	67 - 128	9	30
1,1,2,2-Tetrachloroethane	20.0	20.7		ug/Kg		104	69 - 125	2	30
1,2,3-Trichlorobenzene	20.0	20.5		ug/Kg		103	57 - 131	2	30
o-Xylene	20.0	20.1		ug/Kg		100	75 - 120	1	30
1,2-Dichlorobenzene	20.0	20.1		ug/Kg		101	76 - 120	1	30
1,2-Dibromo-3-Chloropropane	20.0	17.8		ug/Kg		89	48 - 134	5	30
Isopropylbenzene	20.0	20.9		ug/Kg		104	77 - 120	1	30

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	102		54 - 135
4-Bromofluorobenzene (Surr)	99		50 - 131
Dibromofluoromethane (Surr)	101		50 - 141
Toluene-d8 (Surr)	102		52 - 141

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: MB 410-204249/6
Matrix: Water
Analysis Batch: 204249

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			12/11/21 20:06	1
trans-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			12/11/21 20:06	1
Ethylbenzene	0.40	U	1.0	0.40	ug/L			12/11/21 20:06	1
Styrene	0.30	U	5.0	0.30	ug/L			12/11/21 20:06	1
1,4-Dichlorobenzene	0.30	U	5.0	0.30	ug/L			12/11/21 20:06	1
1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L			12/11/21 20:06	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
4-Methyl-2-pentanone	0.50	U	10	0.50	ug/L			12/11/21 20:06	1
Methylcyclohexane	0.50	U	5.0	0.50	ug/L			12/11/21 20:06	1
Toluene	0.20	U	1.0	0.20	ug/L			12/11/21 20:06	1
Chlorobenzene	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
Cyclohexane	1.0	U	5.0	1.0	ug/L			12/11/21 20:06	1
1,2,4-Trichlorobenzene	0.30	U	5.0	0.30	ug/L			12/11/21 20:06	1
1,4-Dioxane	29	U	250	29	ug/L			12/11/21 20:06	1
Dibromochloromethane	0.20	U	1.0	0.20	ug/L			12/11/21 20:06	1
Tetrachloroethene	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
cis-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
trans-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
Methyl tertiary butyl ether	0.20	U	1.0	0.20	ug/L			12/11/21 20:06	1
m&p-Xylene	2.0	U	5.0	2.0	ug/L			12/11/21 20:06	1
1,3-Dichlorobenzene	0.30	U	5.0	0.30	ug/L			12/11/21 20:06	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
2-Hexanone	0.40	U	10	0.40	ug/L			12/11/21 20:06	1
Acetone	0.70	U	20	0.70	ug/L			12/11/21 20:06	1
Chloroform	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
Benzene	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
1,1,1-Trichloroethane	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
Bromomethane	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
Chloromethane	0.20	U	1.0	0.20	ug/L			12/11/21 20:06	1
Bromochloromethane	0.20	U	5.0	0.20	ug/L			12/11/21 20:06	1
Chloroethane	0.20	U	1.0	0.20	ug/L			12/11/21 20:06	1
Vinyl chloride	0.20	U	1.0	0.20	ug/L			12/11/21 20:06	1
Methylene Chloride	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
Carbon disulfide	0.30	U	5.0	0.30	ug/L			12/11/21 20:06	1
Bromoform	1.0	U	4.0	1.0	ug/L			12/11/21 20:06	1
Bromodichloromethane	0.20	U	1.0	0.20	ug/L			12/11/21 20:06	1
1,1-Dichloroethane	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
1,1-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
Trichlorofluoromethane	0.20	U	1.0	0.20	ug/L			12/11/21 20:06	1
Dichlorodifluoromethane	0.20	U	1.0	0.20	ug/L			12/11/21 20:06	1
Freon 113	0.30	U	10	0.30	ug/L			12/11/21 20:06	1
1,2-Dichloropropane	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
2-Butanone	0.50	U	10	0.50	ug/L			12/11/21 20:06	1
1,1,2-Trichloroethane	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
Trichloroethene	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
Methyl acetate	0.30	U	5.0	0.30	ug/L			12/11/21 20:06	1
1,1,1,2-Tetrachloroethane	0.30	U	1.0	0.30	ug/L			12/11/21 20:06	1
1,2,3-Trichlorobenzene	0.40	U	5.0	0.40	ug/L			12/11/21 20:06	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: MB 410-204249/6

Matrix: Water

Analysis Batch: 204249

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	0.40	U	1.0	0.40	ug/L			12/11/21 20:06	1
1,2-Dichlorobenzene	0.20	U	5.0	0.20	ug/L			12/11/21 20:06	1
1,2-Dibromo-3-Chloropropane	0.30	U	5.0	0.30	ug/L			12/11/21 20:06	1
Isopropylbenzene	0.20	U	5.0	0.20	ug/L			12/11/21 20:06	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		12/11/21 20:06	1
4-Bromofluorobenzene (Surr)	101		80 - 120		12/11/21 20:06	1
Dibromofluoromethane (Surr)	98		80 - 120		12/11/21 20:06	1
Toluene-d8 (Surr)	112		80 - 120		12/11/21 20:06	1

Lab Sample ID: LCS 410-204249/4

Matrix: Water

Analysis Batch: 204249

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,3-Dichloropropene	20.0	19.7		ug/L		99	75 - 120
trans-1,3-Dichloropropene	20.0	21.4		ug/L		107	67 - 120
Ethylbenzene	20.0	20.8		ug/L		104	80 - 120
Styrene	20.0	19.9		ug/L		99	80 - 120
1,4-Dichlorobenzene	20.0	19.9		ug/L		99	80 - 120
1,2-Dibromoethane	20.0	19.9		ug/L		100	77 - 120
1,2-Dichloroethane	20.0	20.4		ug/L		102	73 - 124
4-Methyl-2-pentanone	250	244		ug/L		98	62 - 133
Methylcyclohexane	20.0	19.8		ug/L		99	67 - 121
Toluene	20.0	20.9		ug/L		104	80 - 120
Chlorobenzene	20.0	20.5		ug/L		103	80 - 120
Cyclohexane	20.0	19.6		ug/L		98	68 - 126
1,2,4-Trichlorobenzene	20.0	20.3		ug/L		101	63 - 120
1,4-Dioxane	500	601		ug/L		120	63 - 146
Dibromochloromethane	20.0	19.1		ug/L		96	71 - 120
Tetrachloroethene	20.0	18.7		ug/L		94	80 - 120
cis-1,2-Dichloroethene	20.0	19.7		ug/L		98	80 - 125
trans-1,2-Dichloroethene	20.0	19.2		ug/L		96	80 - 126
Methyl tertiary butyl ether	20.0	19.9		ug/L		99	69 - 122
m&p-Xylene	40.0	40.3		ug/L		101	80 - 120
1,3-Dichlorobenzene	20.0	20.0		ug/L		100	80 - 120
Carbon tetrachloride	20.0	17.8		ug/L		89	64 - 134
2-Hexanone	250	267		ug/L		107	56 - 135
Acetone	250	258		ug/L		103	54 - 157
Chloroform	20.0	19.4		ug/L		97	80 - 120
Benzene	20.0	20.2		ug/L		101	80 - 120
1,1,1-Trichloroethane	20.0	18.4		ug/L		92	67 - 126
Bromomethane	20.0	18.7		ug/L		93	53 - 128
Chloromethane	20.0	19.6		ug/L		98	56 - 121
Bromochloromethane	20.0	19.5		ug/L		98	80 - 120
Chloroethane	20.0	20.2		ug/L		101	55 - 123
Vinyl chloride	20.0	19.7		ug/L		98	56 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: LCS 410-204249/4

Matrix: Water

Analysis Batch: 204249

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	19.7		ug/L		99	80 - 120
Carbon disulfide	20.0	18.6		ug/L		93	65 - 128
Bromoform	20.0	17.0		ug/L		85	51 - 120
Bromodichloromethane	20.0	19.1		ug/L		96	71 - 120
1,1-Dichloroethane	20.0	20.0		ug/L		100	80 - 120
1,1-Dichloroethene	20.0	19.7		ug/L		98	80 - 131
Trichlorofluoromethane	20.0	17.6		ug/L		88	55 - 135
Dichlorodifluoromethane	20.0	19.3		ug/L		96	41 - 127
Freon 113	20.0	19.2		ug/L		96	73 - 139
1,2-Dichloropropane	20.0	21.0		ug/L		105	80 - 120
2-Butanone	250	242		ug/L		97	59 - 135
1,1,2-Trichloroethane	20.0	21.2		ug/L		106	80 - 120
Trichloroethene	20.0	18.9		ug/L		94	80 - 120
Methyl acetate	20.0	19.8		ug/L		99	54 - 136
1,1,1,2-Tetrachloroethane	20.0	22.5		ug/L		112	72 - 120
1,2,3-Trichlorobenzene	20.0	20.7		ug/L		103	66 - 120
o-Xylene	20.0	20.3		ug/L		102	80 - 120
1,2-Dichlorobenzene	20.0	20.1		ug/L		100	80 - 120
1,2-Dibromo-3-Chloropropane	20.0	20.0		ug/L		100	47 - 131
Isopropylbenzene	20.0	20.6		ug/L		103	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	97		80 - 120
Toluene-d8 (Surr)	111		80 - 120

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

Lab Sample ID: MB 410-203249/1-A

Matrix: Water

Analysis Batch: 204373

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203249

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1'-Biphenyl	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
1,2,4,5-Tetrachlorobenzene	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
2,2'-oxybis[1-chloropropane]	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
2,3,4,6-Tetrachlorophenol	1.0	U	5.0	1.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
2,4,5-Trichlorophenol	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
2,4,6-Trichlorophenol	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
2,4-Dichlorophenol	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
2,4-Dimethylphenol	3.0	U	10	3.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
2,4-Dinitrophenol	14	U	30	14	ug/L		12/09/21 10:13	12/12/21 15:43	1
2,4-Dinitrotoluene	1.0	U	5.0	1.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
2,6-Dinitrotoluene	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
2-Chloronaphthalene	0.40	U	1.0	0.40	ug/L		12/09/21 10:13	12/12/21 15:43	1
2-Chlorophenol	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
2-Methylnaphthalene	0.10	U	0.50	0.10	ug/L		12/09/21 10:13	12/12/21 15:43	1
2-Methylphenol	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1

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QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: MB 410-203249/1-A

Matrix: Water

Analysis Batch: 204373

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203249

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2-Nitroaniline	1.0	U	5.0	1.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
2-Nitrophenol	1.0	U	5.0	1.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
3,3'-Dichlorobenzidine	4.0	U	10	4.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
3-Nitroaniline	2.0	U	5.0	2.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
4,6-Dinitro-2-methylphenol	8.0	U	21	8.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
4-Bromophenyl-phenylether	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
4-Chloro-3-methylphenol	1.0	U	5.0	1.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
4-Methylphenol	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
4-Nitroaniline	0.90	U	3.0	0.90	ug/L		12/09/21 10:13	12/12/21 15:43	1
4-Nitrophenol	10	U	30	10	ug/L		12/09/21 10:13	12/12/21 15:43	1
Acenaphthene	0.10	U	0.50	0.10	ug/L		12/09/21 10:13	12/12/21 15:43	1
Acenaphthylene	0.10	U	0.50	0.10	ug/L		12/09/21 10:13	12/12/21 15:43	1
Acetophenone	1.0	U	5.0	1.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
Anthracene	0.10	U	0.50	0.10	ug/L		12/09/21 10:13	12/12/21 15:43	1
Atrazine	1.0	U	5.0	1.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
Benzaldehyde	1.0	U	5.0	1.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
Benzo[a]anthracene	0.10	U	0.50	0.10	ug/L		12/09/21 10:13	12/12/21 15:43	1
Benzo[a]pyrene	0.11	U	0.50	0.11	ug/L		12/09/21 10:13	12/12/21 15:43	1
Benzo[b]fluoranthene	0.10	U	0.50	0.10	ug/L		12/09/21 10:13	12/12/21 15:43	1
Benzo[g,h,i]perylene	0.10	U	0.50	0.10	ug/L		12/09/21 10:13	12/12/21 15:43	1
Benzo[k]fluoranthene	0.10	U	0.50	0.10	ug/L		12/09/21 10:13	12/12/21 15:43	1
Bis(2-chloroethoxy)methane	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
Bis(2-chloroethyl)ether	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
Bis(2-ethylhexyl) phthalate	2.0	U	5.0	2.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
Butylbenzylphthalate	2.0	U	5.0	2.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
Caprolactam	3.0	U	7.0	3.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
Carbazole	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
Chrysene	0.10	U	0.50	0.10	ug/L		12/09/21 10:13	12/12/21 15:43	1
Di-n-butyl phthalate	7.39		5.0	2.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
Di-n-octyl phthalate	5.0	U	11	5.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
Dibenz(a,h)anthracene	0.10	U	0.50	0.10	ug/L		12/09/21 10:13	12/12/21 15:43	1
Dibenzofuran	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
Diethyl phthalate	2.0	U	5.0	2.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
Dimethyl phthalate	2.0	U	5.0	2.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
Fluoranthene	0.10	U	0.50	0.10	ug/L		12/09/21 10:13	12/12/21 15:43	1
Fluorene	0.12	U	0.50	0.12	ug/L		12/09/21 10:13	12/12/21 15:43	1
Hexachlorobenzene	0.11	U	0.50	0.11	ug/L		12/09/21 10:13	12/12/21 15:43	1
Hexachlorobutadiene	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
Hexachlorocyclopentadiene	5.0	U	11	5.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
Hexachloroethane	0.50	U	5.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
Indeno[1,2,3-cd]pyrene	0.11	U	0.50	0.11	ug/L		12/09/21 10:13	12/12/21 15:43	1
Isophorone	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
N-Nitrosodi-n-propylamine	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
N-Nitrosodiphenylamine	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
Naphthalene	0.10	U	0.50	0.10	ug/L		12/09/21 10:13	12/12/21 15:43	1
Nitrobenzene	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
Phenanthrene	0.11	U	0.50	0.11	ug/L		12/09/21 10:13	12/12/21 15:43	1
Phenol	0.50	U	2.0	0.50	ug/L		12/09/21 10:13	12/12/21 15:43	1
Pyrene	0.10	U	0.50	0.10	ug/L		12/09/21 10:13	12/12/21 15:43	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: MB 410-203249/1-A

Matrix: Water

Analysis Batch: 204373

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203249

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	1.0	U	5.0	1.0	ug/L		12/09/21 10:13	12/12/21 15:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	88		31 - 119				12/09/21 10:13	12/12/21 15:43	1
Nitrobenzene-d5 (Surr)	86		22 - 117				12/09/21 10:13	12/12/21 15:43	1
2-Fluorophenol (Surr)	46		10 - 78				12/09/21 10:13	12/12/21 15:43	1
2-Fluorobiphenyl (Surr)	75		35 - 100				12/09/21 10:13	12/12/21 15:43	1
2,4,6-Tribromophenol (Surr)	90		10 - 150				12/09/21 10:13	12/12/21 15:43	1
Phenol-d5 (Surr)	32		10 - 67				12/09/21 10:13	12/12/21 15:43	1

Lab Sample ID: LCS 410-203249/2-A

Matrix: Water

Analysis Batch: 204373

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 203249

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	50.0	41.2		ug/L		82	53 - 120
1,2,4,5-Tetrachlorobenzene	50.0	38.7		ug/L		77	39 - 120
2,2'-oxybis[1-chloropropane]	50.0	40.5		ug/L		81	48 - 120
2,3,4,6-Tetrachlorophenol	50.0	45.7		ug/L		91	65 - 123
2,4,5-Trichlorophenol	50.0	45.3		ug/L		91	66 - 120
2,4,6-Trichlorophenol	50.0	46.7		ug/L		93	63 - 120
2,4-Dichlorophenol	50.0	44.7		ug/L		89	64 - 120
2,4-Dimethylphenol	50.0	45.4		ug/L		91	64 - 107
2,4-Dinitrophenol	100	76.5		ug/L		77	33 - 132
2,4-Dinitrotoluene	50.0	45.9		ug/L		92	71 - 120
2,6-Dinitrotoluene	50.0	46.3		ug/L		93	72 - 120
2-Chloronaphthalene	50.0	39.3		ug/L		79	51 - 120
2-Chlorophenol	50.0	40.8		ug/L		82	57 - 120
2-Methylnaphthalene	50.0	39.1		ug/L		78	53 - 120
2-Methylphenol	50.0	39.9		ug/L		80	51 - 120
2-Nitroaniline	50.0	47.4		ug/L		95	67 - 120
2-Nitrophenol	50.0	43.3		ug/L		87	59 - 120
3,3'-Dichlorobenzidine	100	64.4		ug/L		64	42 - 107
3-Nitroaniline	50.0	30.0		ug/L		60	52 - 120
4,6-Dinitro-2-methylphenol	100	87.0		ug/L		87	53 - 123
4-Bromophenyl-phenylether	50.0	44.3		ug/L		89	66 - 120
4-Chloro-3-methylphenol	50.0	49.9		ug/L		100	60 - 120
4-Methylphenol	50.0	35.7		ug/L		71	44 - 120
4-Nitroaniline	50.0	37.6		ug/L		75	60 - 120
4-Nitrophenol	100	60.3		ug/L		60	19 - 120
Acenaphthene	50.0	42.4		ug/L		85	59 - 120
Acenaphthylene	50.0	43.7		ug/L		87	63 - 121
Acetophenone	50.0	41.3		ug/L		83	62 - 120
Anthracene	50.0	43.6		ug/L		87	73 - 120
Atrazine	50.0	56.0		ug/L		112	66 - 122
Benzaldehyde	50.0	55.4		ug/L		111	45 - 120
Benzo[a]anthracene	50.0	43.9		ug/L		88	74 - 120
Benzo[a]pyrene	50.0	40.8		ug/L		82	60 - 116

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: LCS 410-203249/2-A

Matrix: Water

Analysis Batch: 204373

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 203249

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzo[b]fluoranthene	50.0	43.2		ug/L		86	71 - 120
Benzo[g,h,i]perylene	50.0	47.1		ug/L		94	60 - 120
Benzo[k]fluoranthene	50.0	44.7		ug/L		89	78 - 120
Bis(2-chloroethoxy)methane	50.0	42.1		ug/L		84	62 - 120
Bis(2-chloroethyl)ether	50.0	38.9		ug/L		78	62 - 120
Bis(2-ethylhexyl) phthalate	50.0	47.1		ug/L		94	60 - 120
Butylbenzylphthalate	50.0	36.8		ug/L		74	11 - 125
Caprolactam	50.0	13.9		ug/L		28	12 - 120
Carbazole	50.0	42.2		ug/L		84	74 - 120
Chrysene	50.0	40.9		ug/L		82	76 - 120
Di-n-butyl phthalate	50.0	67.6	*+	ug/L		135	53 - 120
Di-n-octyl phthalate	50.0	53.5		ug/L		107	59 - 120
Dibenz(a,h)anthracene	50.0	48.6		ug/L		97	62 - 120
Dibenzofuran	50.0	42.4		ug/L		85	60 - 112
Diethyl phthalate	50.0	42.9		ug/L		86	27 - 120
Dimethyl phthalate	50.0	33.1		ug/L		66	10 - 124
Fluoranthene	50.0	44.4		ug/L		89	74 - 120
Fluorene	50.0	43.9		ug/L		88	64 - 120
Hexachlorobenzene	50.0	41.8		ug/L		84	65 - 120
Hexachlorobutadiene	50.0	33.9		ug/L		68	24 - 120
Hexachlorocyclopentadiene	50.0	17.0		ug/L		34	10 - 120
Hexachloroethane	50.0	33.7		ug/L		67	22 - 120
Indeno[1,2,3-cd]pyrene	50.0	45.4		ug/L		91	52 - 121
Isophorone	50.0	43.6		ug/L		87	70 - 120
N-Nitrosodi-n-propylamine	50.0	42.2		ug/L		84	63 - 120
N-Nitrosodiphenylamine	42.5	36.5		ug/L		86	72 - 120
Naphthalene	50.0	40.9		ug/L		82	51 - 102
Nitrobenzene	50.0	42.0		ug/L		84	59 - 120
Phenanthrene	50.0	42.9		ug/L		86	72 - 120
Phenol	50.0	19.6		ug/L		39	22 - 120
Pyrene	50.0	44.6		ug/L		89	73 - 120
Pentachlorophenol	100	85.3		ug/L		85	48 - 123

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
p-Terphenyl-d14 (Surr)	92		31 - 119
Nitrobenzene-d5 (Surr)	83		22 - 117
2-Fluorophenol (Surr)	55		10 - 78
2-Fluorobiphenyl (Surr)	81		35 - 100
2,4,6-Tribromophenol (Surr)	101		10 - 150
Phenol-d5 (Surr)	43		10 - 67

Lab Sample ID: MB 410-204434/1-A

Matrix: Solid

Analysis Batch: 204722

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 204434

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1'-Biphenyl	17	U	37	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
1,2,4,5-Tetrachlorobenzene	17	U	37	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: MB 410-204434/1-A

Matrix: Solid

Analysis Batch: 204722

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 204434

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,2'-oxybis[1-chloropropane]	20	U	43	20	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
2,3,4,6-Tetrachlorophenol	67	U	170	67	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
2,4,5-Trichlorophenol	17	U	37	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
2,4,6-Trichlorophenol	17	U	37	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
2,4-Dichlorophenol	20	U	43	20	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
2,4-Dimethylphenol	17	U	37	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
2,4-Dinitrophenol	170	U	1000	170	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
2,4-Dinitrotoluene	33	U	170	33	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
2,6-Dinitrotoluene	17	U	37	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
2-Chloronaphthalene	13	U	33	13	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
2-Chlorophenol	17	U	37	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
2-Methylnaphthalene	5.0	U	17	5.0	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
2-Methylphenol	20	U	50	20	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
2-Nitroaniline	17	U	50	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
2-Nitrophenol	20	U	50	20	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
3,3'-Dichlorobenzidine	33	U	170	33	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
3-Nitroaniline	33	U	170	33	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
4,6-Dinitro-2-methylphenol	170	U	500	170	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
4-Bromophenyl-phenylether	17	U	37	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
4-Chloro-3-methylphenol	20	U	50	20	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
4-Methylphenol	17	U	50	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
4-Nitroaniline	33	U	170	33	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
4-Nitrophenol	170	U	500	170	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Acenaphthene	3.3	U	17	3.3	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Acenaphthylene	4.0	U	17	4.0	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Acetophenone	17	U	50	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Anthracene	3.3	U	17	3.3	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Atrazine	67	U	170	67	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Benzaldehyde	33	U	170	33	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Benzo[a]anthracene	3.3	U	17	3.3	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Benzo[a]pyrene	3.3	U	17	3.3	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Benzo[b]fluoranthene	3.3	U	17	3.3	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Benzo[g,h,i]perylene	3.3	U	17	3.3	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Benzo[k]fluoranthene	3.3	U	17	3.3	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Bis(2-chloroethoxy)methane	17	U	37	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Bis(2-chloroethyl)ether	17	U	37	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Bis(2-ethylhexyl) phthalate	67	U	170	67	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Butylbenzylphthalate	67	U	170	67	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Caprolactam	33	U	170	33	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Carbazole	17	U	37	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Chrysene	3.3	U	17	3.3	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Di-n-butyl phthalate	67	U	170	67	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Di-n-octyl phthalate	67	U	170	67	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Dibenz(a,h)anthracene	6.7	U	17	6.7	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Dibenzofuran	17	U	37	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Diethyl phthalate	67	U	170	67	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Dimethyl phthalate	67	U	170	67	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Fluoranthene	3.3	U	17	3.3	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Fluorene	3.3	U	17	3.3	ug/Kg		12/13/21 09:15	12/13/21 19:09	1

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: MB 410-204434/1-A

Matrix: Solid

Analysis Batch: 204722

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 204434

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hexachlorobenzene	6.7	U	17	6.7	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Hexachlorobutadiene	20	U	50	20	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Hexachlorocyclopentadiene	170	U	500	170	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Hexachloroethane	33	U	170	33	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Indeno[1,2,3-cd]pyrene	4.0	U	17	4.0	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Isophorone	17	U	67	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
N-Nitrosodi-n-propylamine	33	U	67	33	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
N-Nitrosodiphenylamine	17	U	37	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Naphthalene	6.7	U	17	6.7	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Nitrobenzene	17	U	37	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Phenanthrene	4.0	U	17	4.0	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Phenol	17	U	37	17	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Pyrene	3.3	U	17	3.3	ug/Kg		12/13/21 09:15	12/13/21 19:09	1
Pentachlorophenol	67	U	170	67	ug/Kg		12/13/21 09:15	12/13/21 19:09	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
p-Terphenyl-d14 (Surr)	93		45 - 108	12/13/21 09:15	12/13/21 19:09	1
Nitrobenzene-d5 (Surr)	69		32 - 97	12/13/21 09:15	12/13/21 19:09	1
2-Fluorophenol (Surr)	75		26 - 96	12/13/21 09:15	12/13/21 19:09	1
2-Fluorobiphenyl (Surr)	74		39 - 100	12/13/21 09:15	12/13/21 19:09	1
2,4,6-Tribromophenol (Surr)	78		13 - 121	12/13/21 09:15	12/13/21 19:09	1
Phenol-d5 (Surr)	72		27 - 104	12/13/21 09:15	12/13/21 19:09	1

Lab Sample ID: LCS 410-204434/2-A

Matrix: Solid

Analysis Batch: 204722

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 204434

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	1670	1320		ug/Kg		79	60 - 120
2,2'-oxybis[1-chloropropane]	1670	939		ug/Kg		56	48 - 120
2,3,4,6-Tetrachlorophenol	1670	1230		ug/Kg		74	59 - 120
2,4,5-Trichlorophenol	1670	1490		ug/Kg		90	61 - 120
2,4,6-Trichlorophenol	1670	1450		ug/Kg		87	59 - 120
2,4-Dichlorophenol	1670	1410		ug/Kg		84	62 - 120
2,4-Dimethylphenol	1670	1320		ug/Kg		79	65 - 120
2,4-Dinitrophenol	3330	2280		ug/Kg		68	44 - 120
2,4-Dinitrotoluene	1670	1320		ug/Kg		79	68 - 120
2,6-Dinitrotoluene	1670	1410		ug/Kg		85	67 - 120
2-Chloronaphthalene	1670	1380		ug/Kg		83	61 - 120
2-Chlorophenol	1670	1300		ug/Kg		78	59 - 120
2-Methylnaphthalene	1670	1290		ug/Kg		77	63 - 120
2-Methylphenol	1670	1320		ug/Kg		79	63 - 120
2-Nitroaniline	1670	1460		ug/Kg		88	64 - 120
2-Nitrophenol	1670	1370		ug/Kg		82	55 - 120
3,3'-Dichlorobenzidine	3330	1760		ug/Kg		53	19 - 120
3-Nitroaniline	1670	739		ug/Kg		44	31 - 120
4,6-Dinitro-2-methylphenol	3330	2720		ug/Kg		82	59 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: LCS 410-204434/2-A

Matrix: Solid

Analysis Batch: 204722

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 204434

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Bromophenyl-phenylether	1670	1490		ug/Kg		89	65 - 120
4-Chloro-3-methylphenol	1670	1350		ug/Kg		81	67 - 120
4-Methylphenol	1670	1250		ug/Kg		75	56 - 120
4-Nitroaniline	1670	1210		ug/Kg		72	59 - 120
4-Nitrophenol	3330	2160		ug/Kg		65	58 - 120
Acenaphthene	1670	1310		ug/Kg		78	61 - 120
Acenaphthylene	1670	1400		ug/Kg		84	69 - 120
Acetophenone	1670	1170		ug/Kg		70	54 - 120
Anthracene	1670	1470		ug/Kg		88	75 - 120
Atrazine	1670	1330		ug/Kg		80	63 - 127
Benzaldehyde	1670	843		ug/Kg		51	25 - 120
Benzo[a]anthracene	1670	1470		ug/Kg		88	73 - 120
Benzo[a]pyrene	1670	1620		ug/Kg		97	80 - 123
Benzo[b]fluoranthene	1670	1430		ug/Kg		86	63 - 120
Benzo[g,h,i]perylene	1670	1620		ug/Kg		97	77 - 120
Benzo[k]fluoranthene	1670	1510		ug/Kg		90	68 - 120
Bis(2-chloroethoxy)methane	1670	1210		ug/Kg		72	55 - 120
Bis(2-chloroethyl)ether	1670	1190		ug/Kg		72	49 - 120
Bis(2-ethylhexyl) phthalate	1670	1370		ug/Kg		82	65 - 120
Butylbenzylphthalate	1670	1350		ug/Kg		81	66 - 120
Caprolactam	1670	1360		ug/Kg		82	54 - 120
Carbazole	1670	1460		ug/Kg		88	74 - 120
Chrysene	1670	1410		ug/Kg		85	66 - 120
Di-n-butyl phthalate	1670	1440		ug/Kg		87	65 - 120
Di-n-octyl phthalate	1670	1540		ug/Kg		93	60 - 125
Dibenz(a,h)anthracene	1670	1630		ug/Kg		98	72 - 120
Dibenzofuran	1670	1310		ug/Kg		79	68 - 120
Diethyl phthalate	1670	1290		ug/Kg		77	65 - 120
Dimethyl phthalate	1670	1300		ug/Kg		78	67 - 120
Fluoranthene	1670	1470		ug/Kg		88	71 - 120
Fluorene	1670	1350		ug/Kg		81	68 - 120
Hexachlorobenzene	1670	1420		ug/Kg		85	58 - 120
Hexachlorobutadiene	1670	1130		ug/Kg		68	48 - 120
Hexachlorocyclopentadiene	1670	957		ug/Kg		57	43 - 120
Hexachloroethane	1670	1070		ug/Kg		64	48 - 120
Indeno[1,2,3-cd]pyrene	1670	1620		ug/Kg		97	71 - 122
Isophorone	1670	1180		ug/Kg		71	62 - 120
N-Nitrosodi-n-propylamine	1670	1110		ug/Kg		67	55 - 120
N-Nitrosodiphenylamine	1420	1300		ug/Kg		91	71 - 120
Naphthalene	1670	1270		ug/Kg		76	60 - 120
Nitrobenzene	1670	1110		ug/Kg		67	56 - 120
Phenanthrene	1670	1420		ug/Kg		85	74 - 120
Phenol	1670	1180		ug/Kg		71	57 - 120
Pyrene	1670	1430		ug/Kg		86	70 - 120
Pentachlorophenol	3330	2590		ug/Kg		78	41 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl-d14 (Surr)	88		45 - 108

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: LCS 410-204434/2-A
Matrix: Solid
Analysis Batch: 204722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 204434

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5 (Surr)	65		32 - 97
2-Fluorophenol (Surr)	74		26 - 96
2-Fluorobiphenyl (Surr)	75		39 - 100
2,4,6-Tribromophenol (Surr)	79		13 - 121
Phenol-d5 (Surr)	72		27 - 104

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-202747/1-A
Matrix: Water
Analysis Batch: 203188

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 202747

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin (1C)	0.0020	U	0.020	0.0020	ug/L		12/08/21 08:43	12/09/21 06:53	1
alpha-BHC (1C)	0.0030	U	0.020	0.0030	ug/L		12/08/21 08:43	12/09/21 06:53	1
alpha-Chlordane (1C)	0.0030	U	0.020	0.0030	ug/L		12/08/21 08:43	12/09/21 06:53	1
beta-BHC (1C)	0.0034	U	0.020	0.0034	ug/L		12/08/21 08:43	12/09/21 06:53	1
delta-BHC (1C)	0.0034	U	0.020	0.0034	ug/L		12/08/21 08:43	12/09/21 06:53	1
Dieldrin (1C)	0.0053	U	0.030	0.0053	ug/L		12/08/21 08:43	12/09/21 06:53	1
Endosulfan I (1C)	0.0043	U	0.020	0.0043	ug/L		12/08/21 08:43	12/09/21 06:53	1
Endosulfan II (1C)	0.015	U	0.040	0.015	ug/L		12/08/21 08:43	12/09/21 06:53	1
Endosulfan sulfate (1C)	0.0058	U	0.030	0.0058	ug/L		12/08/21 08:43	12/09/21 06:53	1
Endrin (1C)	0.0081	U	0.030	0.0081	ug/L		12/08/21 08:43	12/09/21 06:53	1
Endrin aldehyde (1C)	0.020	U	0.10	0.020	ug/L		12/08/21 08:43	12/09/21 06:53	1
Endrin ketone (1C)	0.0050	U	0.030	0.0050	ug/L		12/08/21 08:43	12/09/21 06:53	1
gamma-BHC (Lindane) (1C)	0.0020	U	0.020	0.0020	ug/L		12/08/21 08:43	12/09/21 06:53	1
gamma-Chlordane (1C)	0.0070	U	0.040	0.0070	ug/L		12/08/21 08:43	12/09/21 06:53	1
Heptachlor (1C)	0.0020	U	0.020	0.0020	ug/L		12/08/21 08:43	12/09/21 06:53	1
Heptachlor epoxide (1C)	0.0023	U	0.020	0.0023	ug/L		12/08/21 08:43	12/09/21 06:53	1
Methoxychlor (1C)	0.030	U	0.11	0.030	ug/L		12/08/21 08:43	12/09/21 06:53	1
Toxaphene (1C)	0.30	U	1.0	0.30	ug/L		12/08/21 08:43	12/09/21 06:53	1
p,p'-DDD (1C)	0.0050	U	0.030	0.0050	ug/L		12/08/21 08:43	12/09/21 06:53	1
p,p'-DDE (1C)	0.0050	U	0.030	0.0050	ug/L		12/08/21 08:43	12/09/21 06:53	1
p,p'-DDT (1C)	0.0052	U	0.030	0.0052	ug/L		12/08/21 08:43	12/09/21 06:53	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	85		20 - 149	12/08/21 08:43	12/09/21 06:53	1
DCB Decachlorobiphenyl (Surr) (2C)	80		20 - 149	12/08/21 08:43	12/09/21 06:53	1
Tetrachloro-m-xylene (Surr) (1C)	85		20 - 129	12/08/21 08:43	12/09/21 06:53	1
Tetrachloro-m-xylene (Surr) (2C)	75		20 - 129	12/08/21 08:43	12/09/21 06:53	1

Lab Sample ID: LCS 410-202747/2-A
Matrix: Water
Analysis Batch: 203188

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 202747

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Aldrin (1C)	0.101	0.0983		ug/L		97	10 - 148
alpha-BHC (1C)	0.101	0.110		ug/L		109	47 - 132

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: LCS 410-202747/2-A

Matrix: Water

Analysis Batch: 203188

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 202747

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
beta-BHC (1C)	0.100	0.112		ug/L		112	65 - 139
delta-BHC (1C)	0.100	0.111		ug/L		111	56 - 141
Dieldrin (1C)	0.200	0.237		ug/L		118	58 - 145
Endosulfan I (1C)	0.101	0.109		ug/L		107	40 - 138
Endosulfan II (1C)	0.201	0.226		ug/L		113	61 - 138
Endosulfan sulfate (1C)	0.201	0.226		ug/L		112	41 - 133
Endrin (1C)	0.200	0.249		ug/L		124	63 - 131
Endrin aldehyde (1C)	0.201	0.208		ug/L		103	57 - 135
Endrin ketone (1C)	0.200	0.228		ug/L		114	67 - 136
gamma-BHC (Lindane) (1C)	0.100	0.106		ug/L		106	61 - 139
Heptachlor (1C)	0.101	0.107		ug/L		105	35 - 136
Heptachlor epoxide (1C)	0.100	0.114		ug/L		114	59 - 146
Methoxychlor (1C)	1.01	1.32		ug/L		131	66 - 148
p,p'-DDD (1C)	0.201	0.234		ug/L		116	42 - 148
p,p'-DDE (1C)	0.201	0.218		ug/L		108	20 - 140
p,p'-DDT (1C)	0.201	0.266		ug/L		132	40 - 145

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	87		20 - 149
DCB Decachlorobiphenyl (Surr) (2C)	80		20 - 149
Tetrachloro-m-xylene (Surr) (1C)	82		20 - 129
Tetrachloro-m-xylene (Surr) (2C)	72		20 - 129

Lab Sample ID: LCSD 410-202747/3-A

Matrix: Water

Analysis Batch: 203188

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 202747

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin (1C)	0.101	0.0686	*1	ug/L		68	10 - 148	36	30
alpha-BHC (1C)	0.101	0.0782	*1	ug/L		77	47 - 132	34	30
beta-BHC (1C)	0.100	0.101		ug/L		101	65 - 139	10	30
delta-BHC (1C)	0.100	0.0806	*1	ug/L		81	56 - 141	31	30
Dieldrin (1C)	0.200	0.172	*1	ug/L		86	58 - 145	32	30
Endosulfan I (1C)	0.101	0.0769	*1	ug/L		76	40 - 138	34	30
Endosulfan II (1C)	0.201	0.166	*1	ug/L		82	61 - 138	31	30
Endosulfan sulfate (1C)	0.201	0.168		ug/L		84	41 - 133	29	30
Endrin (1C)	0.200	0.181	*1	ug/L		91	63 - 131	31	30
Endrin aldehyde (1C)	0.201	0.166	*1	ug/L		83	57 - 135	22	20
Endrin ketone (1C)	0.200	0.165	*1	ug/L		83	67 - 136	32	30
gamma-BHC (Lindane) (1C)	0.100	0.0770	*1	ug/L		77	61 - 139	32	30
Heptachlor (1C)	0.101	0.0786		ug/L		78	35 - 136	30	30
Heptachlor epoxide (1C)	0.100	0.0795	*1	ug/L		80	59 - 146	35	30
Methoxychlor (1C)	1.01	1.01		ug/L		100	66 - 148	27	30
p,p'-DDD (1C)	0.201	0.170	*1	ug/L		84	42 - 148	32	30
p,p'-DDE (1C)	0.201	0.152	*1	ug/L		76	20 - 140	36	30

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: LCSD 410-202747/3-A
Matrix: Water
Analysis Batch: 203188

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 202747

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
p,p'-DDT (1C)	0.201	0.195	*1	ug/L		97	40 - 145	31	30
LCSD LCSD									
Surrogate	%Recovery	Qualifier	Limits						
DCB Decachlorobiphenyl (Surr) (1C)	12	S1-	20 - 149						
DCB Decachlorobiphenyl (Surr) (2C)	11	S1-	20 - 149						
Tetrachloro-m-xylene (Surr) (1C)	56		20 - 129						
Tetrachloro-m-xylene (Surr) (2C)	51		20 - 129						

Lab Sample ID: MB 410-206012/1-A
Matrix: Solid
Analysis Batch: 206517

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 206012

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Aldrin (1C)	0.17	U	0.83	0.17	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
alpha-BHC (1C)	0.17	U	0.83	0.17	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
alpha-Chlordane (1C)	0.17	U	0.83	0.17	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
beta-BHC (1C)	0.44	U	1.0	0.44	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
delta-BHC (1C)	0.45	U	1.0	0.45	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
Dieldrin (1C)	0.33	U	1.7	0.33	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
Endosulfan I (1C)	0.22	U	0.83	0.22	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
Endosulfan II (1C)	1.1	U	2.3	1.1	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
Endosulfan sulfate (1C)	0.33	U	1.7	0.33	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
Endrin (1C)	0.68	U	1.7	0.68	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
Endrin aldehyde (1C)	0.33	U	1.7	0.33	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
Endrin ketone (1C)	0.60	U	2.0	0.60	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
gamma-BHC (Lindane) (1C)	0.21	U	0.83	0.21	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
gamma-Chlordane (1C)	0.25	U	0.83	0.25	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
Heptachlor (1C)	0.31	U	0.83	0.31	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
Heptachlor epoxide (1C)	0.17	U	0.83	0.17	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
Methoxychlor (1C)	1.8	U	6.7	1.8	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
Toxaphene (1C)	14	U	33	14	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
p,p'-DDD (1C)	0.33	U	1.7	0.33	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
p,p'-DDE (1C)	0.33	U	1.7	0.33	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
p,p'-DDT (1C)	0.79	U	1.7	0.79	ug/Kg		12/16/21 09:58	12/17/21 07:59	1	
MB MB										
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
DCB Decachlorobiphenyl (Surr) (1C)	81		54 - 143				12/16/21 09:58	12/17/21 07:59	1	
DCB Decachlorobiphenyl (Surr) (2C)	85		54 - 143				12/16/21 09:58	12/17/21 07:59	1	
Tetrachloro-m-xylene (Surr) (1C)	62		20 - 131				12/16/21 09:58	12/17/21 07:59	1	
Tetrachloro-m-xylene (Surr) (2C)	65		20 - 131				12/16/21 09:58	12/17/21 07:59	1	

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: LCS 410-206012/2-A

Matrix: Solid

Analysis Batch: 206517

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206012

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin (1C)	3.38	2.75		ug/Kg		81	56 - 134
alpha-BHC (1C)	3.38	2.73		ug/Kg		81	55 - 135
beta-BHC (1C)	3.33	2.86		ug/Kg		86	50 - 132
delta-BHC (1C)	3.33	2.98		ug/Kg		89	47 - 141
Dieldrin (1C)	6.67	7.01		ug/Kg		105	54 - 136
Endosulfan I (1C)	3.38	2.88		ug/Kg		85	51 - 124
Endosulfan II (1C)	6.71	5.81		ug/Kg		87	56 - 125
Endosulfan sulfate (1C)	6.71	5.69		ug/Kg		85	56 - 125
Endrin (1C)	6.67	5.88		ug/Kg		88	56 - 129
Endrin aldehyde (1C)	6.71	4.87		ug/Kg		73	46 - 133
Endrin ketone (1C)	6.67	5.81		ug/Kg		87	55 - 128
gamma-BHC (Lindane) (1C)	3.33	2.81		ug/Kg		84	52 - 138
Heptachlor (1C)	3.38	2.83		ug/Kg		84	52 - 139
Heptachlor epoxide (1C)	3.33	2.86		ug/Kg		86	55 - 133
Methoxychlor (1C)	33.6	35.0		ug/Kg		104	54 - 148
p,p'-DDE (1C)	6.71	6.59		ug/Kg		98	57 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	80		54 - 143
DCB Decachlorobiphenyl (Surr) (2C)	85		54 - 143
Tetrachloro-m-xylene (Surr) (1C)	58		20 - 131
Tetrachloro-m-xylene (Surr) (2C)	60		20 - 131

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

Lab Sample ID: LCS 410-206012/2-A

Matrix: Solid

Analysis Batch: 206990

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206012

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin (1C) - DL	3.38	2.49		ug/Kg		74	56 - 134
alpha-BHC (1C) - DL	3.38	2.47		ug/Kg		73	55 - 135
beta-BHC (1C) - DL	3.33	2.70		ug/Kg		81	50 - 132
delta-BHC (1C) - DL	3.33	2.62		ug/Kg		79	47 - 141
Dieldrin (1C) - DL	6.67	5.19		ug/Kg		78	54 - 136
Endosulfan I (1C) - DL	3.38	2.50		ug/Kg		74	51 - 124
Endosulfan II (1C) - DL	6.71	5.14		ug/Kg		77	56 - 125
Endosulfan sulfate (1C) - DL	6.71	5.01		ug/Kg		75	56 - 125
Endrin (1C) - DL	6.67	5.65		ug/Kg		85	56 - 129
Endrin aldehyde (1C) - DL	6.71	4.32		ug/Kg		64	46 - 133
Endrin ketone (1C) - DL	6.67	5.11		ug/Kg		77	55 - 128
gamma-BHC (Lindane) (1C) - DL	3.33	2.51		ug/Kg		75	52 - 138
Heptachlor (1C) - DL	3.38	2.44		ug/Kg		72	52 - 139
Heptachlor epoxide (1C) - DL	3.33	2.61		ug/Kg		78	55 - 133
Methoxychlor (1C) - DL	33.6	27.2		ug/Kg		81	54 - 148

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: LCS 410-206012/2-A

Matrix: Solid

Analysis Batch: 206990

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206012

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
p,p'-DDD (1C) - DL	6.71	16.3	*+	ug/Kg		243	59 - 135
p,p'-DDE (1C) - DL	6.71	5.82		ug/Kg		87	57 - 135
p,p'-DDT (1C) - DL	6.71	12.8	*+	ug/Kg		190	53 - 151

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C) - DL	74		54 - 143
DCB Decachlorobiphenyl (Surr) (2C) - DL	74		54 - 143
Tetrachloro-m-xylene (Surr) (1C) - DL	58		20 - 131
Tetrachloro-m-xylene (Surr) (2C) - DL	55		20 - 131

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

Lab Sample ID: MB 410-206011/1-A

Matrix: Solid

Analysis Batch: 206609

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 206011

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	5.3	U	17	5.3	ug/Kg		12/16/21 09:58	12/16/21 20:39	1
PCB-1221 (1C)	5.3	U	17	5.3	ug/Kg		12/16/21 09:58	12/16/21 20:39	1
PCB-1232 (1C)	5.3	U	17	5.3	ug/Kg		12/16/21 09:58	12/16/21 20:39	1
PCB-1242 (1C)	5.3	U	17	5.3	ug/Kg		12/16/21 09:58	12/16/21 20:39	1
PCB-1248 (1C)	5.3	U	17	5.3	ug/Kg		12/16/21 09:58	12/16/21 20:39	1
PCB-1254 (1C)	6.4	U	17	6.4	ug/Kg		12/16/21 09:58	12/16/21 20:39	1
PCB-1260 (1C)	6.4	U	17	6.4	ug/Kg		12/16/21 09:58	12/16/21 20:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (2C)	94		45 - 143	12/16/21 09:58	12/16/21 20:39	1
Tetrachloro-m-xylene (2C)	102		53 - 140	12/16/21 09:58	12/16/21 20:39	1

Lab Sample ID: LCS 410-206011/2-A

Matrix: Solid

Analysis Batch: 206609

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 206011

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016 (1C)	167	157		ug/Kg		94	68 - 121
PCB-1260 (1C)	168	176		ug/Kg		105	75 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (2C)	95		45 - 143
Tetrachloro-m-xylene (2C)	103		53 - 140

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-202148/1-A
Matrix: Solid
Analysis Batch: 204230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 202148

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	1.7	U	5.0	1.7	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Aluminum	11	U	20	11	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Barium	0.15	U	0.50	0.15	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Beryllium	0.10	U	0.50	0.10	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Cadmium	0.10	U	0.50	0.10	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Calcium	12	U	50	12	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Chromium	0.18	U	1.5	0.18	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Cobalt	0.15	U	0.50	0.15	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Copper	0.77	U	2.0	0.77	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Iron	6.2	U	20	6.2	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Magnesium	4.0	U	10	4.0	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Manganese	0.52	U	1.0	0.52	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Nickel	0.26	U	1.0	0.26	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Potassium	20	U	50	20	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Silver	0.40	U ^5-	1.0	0.40	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Sodium	46	U	100	46	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Zinc	1.0	U	2.0	1.0	mg/Kg		12/06/21 22:27	12/11/21 13:16	1
Vanadium	0.43	U	1.0	0.43	mg/Kg		12/06/21 22:27	12/11/21 13:16	1

Lab Sample ID: MB 410-202148/1-A
Matrix: Solid
Analysis Batch: 204866

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 202148

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	1.4	U	3.0	1.4	mg/Kg		12/06/21 22:27	12/13/21 21:21	1
Lead	0.60	U	1.5	0.60	mg/Kg		12/06/21 22:27	12/13/21 21:21	1
Selenium	1.5	U	5.0	1.5	mg/Kg		12/06/21 22:27	12/13/21 21:21	1

Lab Sample ID: MB 410-202148/1-A
Matrix: Solid
Analysis Batch: 205156

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 202148

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Thallium	1.3	U	3.0	1.3	mg/Kg		12/06/21 22:27	12/14/21 10:54	1

Lab Sample ID: LCS 410-202148/2-A
Matrix: Solid
Analysis Batch: 204230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 202148

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Antimony	10.0	10.1		mg/Kg		101	80 - 120
Aluminum	500	515		mg/Kg		103	80 - 120
Barium	50.0	50.4		mg/Kg		101	80 - 120
Beryllium	5.00	5.04		mg/Kg		101	80 - 120
Cadmium	5.00	5.28		mg/Kg		106	80 - 120
Calcium	500	495		mg/Kg		99	80 - 120
Chromium	50.0	52.2		mg/Kg		104	80 - 120
Cobalt	50.0	52.2		mg/Kg		104	80 - 120
Copper	50.0	50.2		mg/Kg		100	80 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: LCS 410-202148/2-A
Matrix: Solid
Analysis Batch: 204230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 202148

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Iron	500	532		mg/Kg		106	80 - 120
Magnesium	500	498		mg/Kg		100	80 - 120
Manganese	50.0	50.1		mg/Kg		100	80 - 120
Nickel	50.0	54.7		mg/Kg		109	80 - 120
Potassium	500	491		mg/Kg		98	80 - 120
Silver	5.00	4.96	^5-	mg/Kg		99	80 - 120
Sodium	500	520		mg/Kg		104	80 - 120
Zinc	50.0	47.9		mg/Kg		96	80 - 120
Vanadium	50.0	50.1		mg/Kg		100	80 - 120

Lab Sample ID: LCS 410-202148/2-A
Matrix: Solid
Analysis Batch: 204866

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 202148

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Arsenic	50.0	49.0		mg/Kg		98	80 - 120
Lead	5.00	5.28		mg/Kg		106	80 - 120
Selenium	10.0	10.2		mg/Kg		102	80 - 120

Lab Sample ID: LCS 410-202148/2-A
Matrix: Solid
Analysis Batch: 205156

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 202148

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Thallium	9.99	10.0		mg/Kg		101	80 - 120

Lab Sample ID: MB 410-203822/1-A
Matrix: Water
Analysis Batch: 203900

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 203822

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	0.16	U	0.31	0.16	mg/L		12/10/21 08:55	12/10/21 09:55	1
Arsenic	0.016	U	0.052	0.016	mg/L		12/10/21 08:55	12/10/21 09:55	1
Barium	0.0010	U	0.0052	0.0010	mg/L		12/10/21 08:55	12/10/21 09:55	1
Beryllium	0.0010	U	0.0052	0.0010	mg/L		12/10/21 08:55	12/10/21 09:55	1
Cadmium	0.0010	U	0.0052	0.0010	mg/L		12/10/21 08:55	12/10/21 09:55	1
Calcium	0.099	U	0.52	0.099	mg/L		12/10/21 08:55	12/10/21 09:55	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/10/21 08:55	12/10/21 09:55	1
Cobalt	0.0015	U	0.0052	0.0015	mg/L		12/10/21 08:55	12/10/21 09:55	1
Copper	0.012	U	0.021	0.012	mg/L		12/10/21 08:55	12/10/21 09:55	1
Iron	0.041	U	0.21	0.041	mg/L		12/10/21 08:55	12/10/21 09:55	1
Lead	0.0073	U ^3+	0.015	0.0073	mg/L		12/10/21 08:55	12/10/21 09:55	1
Magnesium	0.041	U ^5-	0.10	0.041	mg/L		12/10/21 08:55	12/10/21 09:55	1
Manganese	0.0031	U	0.010	0.0031	mg/L		12/10/21 08:55	12/10/21 09:55	1
Nickel	0.0022	U	0.010	0.0022	mg/L		12/10/21 08:55	12/10/21 09:55	1
Selenium	0.016	U	0.052	0.016	mg/L		12/10/21 08:55	12/10/21 09:55	1
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/10/21 08:55	12/10/21 09:55	1
Sodium	0.25	U	1.0	0.25	mg/L		12/10/21 08:55	12/10/21 09:55	1
Thallium	0.0083	U	0.031	0.0083	mg/L		12/10/21 08:55	12/10/21 09:55	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: MB 410-203822/1-A
Matrix: Water
Analysis Batch: 203900

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 203822

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Zinc	0.0038	U	0.021	0.0038	mg/L		12/10/21 08:55	12/10/21 09:55	1
Vanadium	0.0020	U	0.010	0.0020	mg/L		12/10/21 08:55	12/10/21 09:55	1

Lab Sample ID: MB 410-203822/1-A
Matrix: Water
Analysis Batch: 204209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 203822

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	0.016	U	0.052	0.016	mg/L		12/10/21 08:55	12/11/21 10:41	1

Lab Sample ID: MB 410-203822/1-A
Matrix: Water
Analysis Batch: 204241

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 203822

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Potassium	0.21	U	0.52	0.21	mg/L		12/10/21 08:55	12/11/21 16:13	1

Lab Sample ID: LCS 410-203822/2-A
Matrix: Water
Analysis Batch: 203900

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 203822

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.500	0.542		mg/L		108	80 - 120
Barium	0.500	0.522		mg/L		104	80 - 120
Beryllium	0.0500	0.0519		mg/L		104	80 - 120
Cadmium	0.0500	0.0533		mg/L		107	80 - 120
Calcium	5.00	5.28		mg/L		106	80 - 120
Chromium	0.500	0.533		mg/L		106	80 - 120
Cobalt	0.500	0.533		mg/L		107	80 - 120
Copper	0.500	0.519		mg/L		104	80 - 120
Iron	5.00	5.38		mg/L		108	80 - 120
Lead	0.0500	0.0545	^3+	mg/L		109	80 - 120
Magnesium	5.00	5.32	^5-	mg/L		106	80 - 120
Manganese	0.500	0.532		mg/L		106	80 - 120
Nickel	0.500	0.538		mg/L		108	80 - 120
Selenium	0.100	0.108		mg/L		108	80 - 120
Silver	0.0500	0.0529	^5-	mg/L		106	80 - 120
Sodium	5.00	5.39		mg/L		108	80 - 120
Thallium	0.100	0.103		mg/L		103	80 - 120
Zinc	0.500	0.526		mg/L		105	80 - 120
Vanadium	0.500	0.532		mg/L		106	80 - 120

Lab Sample ID: LCS 410-203822/2-A
Matrix: Water
Analysis Batch: 204209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 203822

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: LCS 410-203822/2-A
Matrix: Water
Analysis Batch: 204241

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 203822

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	5.00	5.24		mg/L		105	80 - 120

Lab Sample ID: MB 410-202142/1-A
Matrix: Water
Analysis Batch: 203961

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 202142

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.050	0.016	mg/L		12/06/21 22:06	12/10/21 11:26	1
Aluminum	0.15	U	0.30	0.15	mg/L		12/06/21 22:06	12/10/21 11:26	1
Arsenic	0.016	U	0.050	0.016	mg/L		12/06/21 22:06	12/10/21 11:26	1
Barium	0.0010	U	0.0050	0.0010	mg/L		12/06/21 22:06	12/10/21 11:26	1
Beryllium	0.0010	U	0.0050	0.0010	mg/L		12/06/21 22:06	12/10/21 11:26	1
Cadmium	0.0010	U	0.0050	0.0010	mg/L		12/06/21 22:06	12/10/21 11:26	1
Calcium	0.096	U	0.50	0.096	mg/L		12/06/21 22:06	12/10/21 11:26	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/06/21 22:06	12/10/21 11:26	1
Cobalt	0.0015	U	0.0050	0.0015	mg/L		12/06/21 22:06	12/10/21 11:26	1
Copper	0.012	U	0.020	0.012	mg/L		12/06/21 22:06	12/10/21 11:26	1
Iron	0.040	U	0.20	0.040	mg/L		12/06/21 22:06	12/10/21 11:26	1
Lead	0.0071	U	0.015	0.0071	mg/L		12/06/21 22:06	12/10/21 11:26	1
Magnesium	0.040	U	0.10	0.040	mg/L		12/06/21 22:06	12/10/21 11:26	1
Manganese	0.0030	U	0.010	0.0030	mg/L		12/06/21 22:06	12/10/21 11:26	1
Nickel	0.0021	U ^3+	0.010	0.0021	mg/L		12/06/21 22:06	12/10/21 11:26	1
Potassium	0.20	U	0.50	0.20	mg/L		12/06/21 22:06	12/10/21 11:26	1
Silver	0.0050	U ^5-	0.010	0.0050	mg/L		12/06/21 22:06	12/10/21 11:26	1
Sodium	0.24	U	1.0	0.24	mg/L		12/06/21 22:06	12/10/21 11:26	1
Thallium	0.00907	J	0.030	0.0081	mg/L		12/06/21 22:06	12/10/21 11:26	1
Zinc	0.0037	U	0.020	0.0037	mg/L		12/06/21 22:06	12/10/21 11:26	1
Vanadium	0.0019	U	0.010	0.0019	mg/L		12/06/21 22:06	12/10/21 11:26	1

Lab Sample ID: MB 410-202142/1-A
Matrix: Water
Analysis Batch: 204109

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 202142

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.016	U	0.050	0.016	mg/L		12/06/21 22:06	12/10/21 20:48	1

Lab Sample ID: LCS 410-202142/2-A
Matrix: Water
Analysis Batch: 203961

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 202142

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.110		mg/L		110	80 - 120
Aluminum	5.00	5.00		mg/L		100	80 - 120
Arsenic	0.500	0.525		mg/L		105	80 - 120
Barium	0.500	0.502		mg/L		100	80 - 120
Beryllium	0.0500	0.0505		mg/L		101	80 - 120
Cadmium	0.0500	0.0516		mg/L		103	80 - 120
Calcium	5.00	4.96		mg/L		99	80 - 120
Chromium	0.500	0.507		mg/L		101	80 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

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

Lab Sample ID: LCS 410-202142/2-A
Matrix: Water
Analysis Batch: 203961

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 202142

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Cobalt	0.500	0.518		mg/L		104	80 - 120
Copper	0.500	0.499		mg/L		100	80 - 120
Iron	5.00	5.08		mg/L		102	80 - 120
Lead	0.0500	0.0518		mg/L		104	80 - 120
Magnesium	5.00	4.97		mg/L		99	80 - 120
Manganese	0.500	0.507		mg/L		101	80 - 120
Nickel	0.500	0.528	^3+	mg/L		106	80 - 120
Potassium	5.00	4.85		mg/L		97	80 - 120
Silver	0.0500	0.0500	^5-	mg/L		100	80 - 120
Sodium	5.00	4.93		mg/L		99	80 - 120
Thallium	0.100	0.0981		mg/L		98	80 - 120
Zinc	0.500	0.498		mg/L		100	80 - 120
Vanadium	0.500	0.496		mg/L		99	80 - 120

Lab Sample ID: LCS 410-202142/2-A
Matrix: Water
Analysis Batch: 204109

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 202142

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Selenium	0.100	0.101		mg/L		101	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-202184/1-A
Matrix: Water
Analysis Batch: 202949

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 202184

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.079	U	0.20	0.079	ug/L		12/07/21 05:49	12/08/21 12:21	1

Lab Sample ID: LCS 410-202184/2-A
Matrix: Water
Analysis Batch: 202949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 202184

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Mercury	1.00	0.990		ug/L		99	80 - 118

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-202264/1-A
Matrix: Solid
Analysis Batch: 203124

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 202264

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.015	U	0.036	0.015	mg/Kg		12/07/21 08:18	12/08/21 18:20	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 410-202264/2-A
Matrix: Solid
Analysis Batch: 203124

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 202264

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.100	0.108		mg/Kg		108	80 - 120

Lab Sample ID: 410-65597-1 MS
Matrix: Solid
Analysis Batch: 203124

Client Sample ID: BH-03 (0-0.5)
Prep Type: Total/NA
Prep Batch: 202264

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.18	F1	0.338	0.660	F1	mg/Kg	✱	143	80 - 120

Lab Sample ID: 410-65597-1 MSD
Matrix: Solid
Analysis Batch: 203124

Client Sample ID: BH-03 (0-0.5)
Prep Type: Total/NA
Prep Batch: 202264

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.18	F1	0.344	0.594	F1	mg/Kg	✱	121	80 - 120	11	20

Lab Sample ID: 410-65597-1 DU
Matrix: Solid
Analysis Batch: 203124

Client Sample ID: BH-03 (0-0.5)
Prep Type: Total/NA
Prep Batch: 202264

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.18	F1	0.224	F5	mg/Kg	✱	23	20

Method: 2340C-2011 - Hardness, Total

Lab Sample ID: MB 410-203694/6
Matrix: Water
Analysis Batch: 203694

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	3.0	U	10	3.0	mg/L			12/09/21 09:58	1

Lab Sample ID: LCS 410-203694/7
Matrix: Water
Analysis Batch: 203694

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Hardness	40.0	40.2		mg/L		101	91 - 108

Lab Sample ID: 410-65597-2 DU
Matrix: Water
Analysis Batch: 203694

Client Sample ID: BH-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Hardness	160		150		mg/L		4	7

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav

Lab Sample ID: MB 410-205223/36
Matrix: Water
Analysis Batch: 205223

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			12/14/21 01:30	1

Lab Sample ID: MB 410-205223/6
Matrix: Water
Analysis Batch: 205223

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			12/13/21 17:24	1

Lab Sample ID: LCS 410-205223/35
Matrix: Water
Analysis Batch: 205223

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25.0	24.3		mg/L		97	91 - 113

Method: EPA-Lloyd Kahn - Organic Carbon, Total (TOC)

Lab Sample ID: MB 180-382094/4
Matrix: Solid
Analysis Batch: 382094

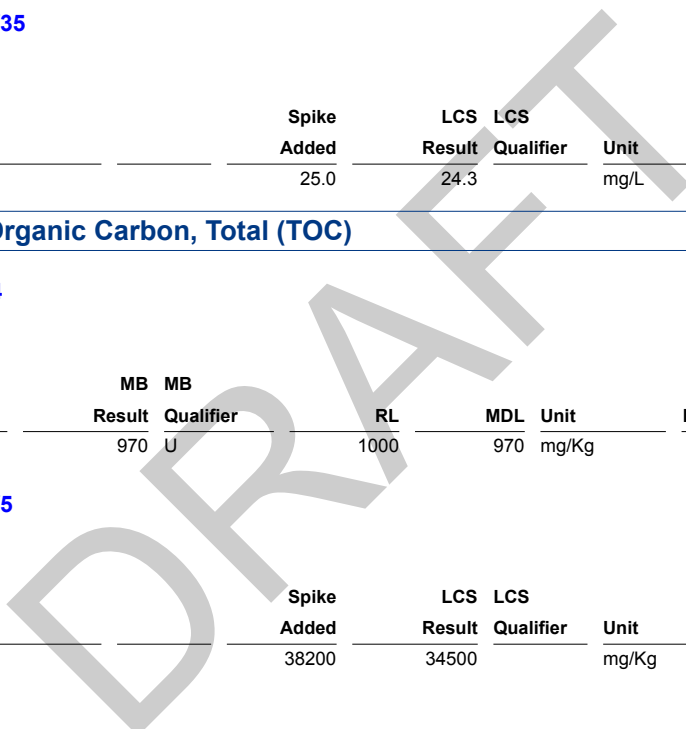
Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	970	U	1000	970	mg/Kg			12/13/21 13:12	1

Lab Sample ID: LCS 180-382094/5
Matrix: Solid
Analysis Batch: 382094

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	38200	34500		mg/Kg		90	75 - 125



Marginal Exceedance (ME) Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LCS 410-206012/2-A

Matrix: Solid

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	%Rec	%Rec. Limits	ME %Rec. Limits	Marginal Exceedance
								Status
Aldrin (1C)	3.38	2.75		ug/Kg	81	56 - 134	51 - 126	
alpha-BHC (1C)	3.38	2.73		ug/Kg	81	55 - 135	55 - 134	
beta-BHC (1C)	3.33	2.86		ug/Kg	86	50 - 132	58 - 139	
delta-BHC (1C)	3.33	2.98		ug/Kg	89	47 - 141	27 - 169	
Dieldrin (1C)	6.67	7.01		ug/Kg	105	54 - 136	53 - 137	
Endosulfan I (1C)	3.38	2.88		ug/Kg	85	51 - 124	53 - 128	
Endosulfan II (1C)	6.71	5.81		ug/Kg	87	56 - 125	55 - 136	
Endosulfan sulfate (1C)	6.71	5.69		ug/Kg	85	56 - 125	65 - 143	
Endrin (1C)	6.67	5.88		ug/Kg	88	56 - 129	77 - 143	
Endrin aldehyde (1C)	6.71	4.87		ug/Kg	73	46 - 133	49 - 133	
Endrin ketone (1C)	6.67	5.81		ug/Kg	87	55 - 128	77 - 139	
gamma-BHC (Lindane) (1C)	3.33	2.81		ug/Kg	84	52 - 138	57 - 144	
Heptachlor (1C)	3.38	2.83		ug/Kg	84	52 - 139	58 - 126	
Heptachlor epoxide (1C)	3.33	2.86		ug/Kg	86	55 - 133	65 - 137	
Methoxychlor (1C)	33.6	35.0		ug/Kg	104	54 - 148	78 - 154	
p,p'-DDE (1C)	6.71	6.59		ug/Kg	98	57 - 135	54 - 159	

Summary

Number of Analytes Reported	Number of Marginal Exceedances Allowed	Number of Marginal Exceedances Found
18	1	0

X = % Recovery is greater than widest possible limit

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

Lab Sample ID: LCS 410-206012/2-A

Matrix: Solid

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	%Rec	%Rec. Limits	ME %Rec. Limits	Marginal Exceedance
								Status
Aldrin (1C) - DL	3.38	2.49		ug/Kg	74	56 - 134	51 - 126	
alpha-BHC (1C) - DL	3.38	2.47		ug/Kg	73	55 - 135	55 - 134	
beta-BHC (1C) - DL	3.33	2.70		ug/Kg	81	50 - 132	58 - 139	
delta-BHC (1C) - DL	3.33	2.62		ug/Kg	79	47 - 141	27 - 169	
Dieldrin (1C) - DL	6.67	5.19		ug/Kg	78	54 - 136	53 - 137	
Endosulfan I (1C) - DL	3.38	2.50		ug/Kg	74	51 - 124	53 - 128	
Endosulfan II (1C) - DL	6.71	5.14		ug/Kg	77	56 - 125	55 - 136	
Endosulfan sulfate (1C) - DL	6.71	5.01		ug/Kg	75	56 - 125	65 - 143	
Endrin (1C) - DL	6.67	5.65		ug/Kg	85	56 - 129	77 - 143	
Endrin aldehyde (1C) - DL	6.71	4.32		ug/Kg	64	46 - 133	49 - 133	
Endrin ketone (1C) - DL	6.67	5.11		ug/Kg	77	55 - 128	77 - 139	
gamma-BHC (Lindane) (1C) - DL	3.33	2.51		ug/Kg	75	52 - 138	57 - 144	
Heptachlor (1C) - DL	3.38	2.44		ug/Kg	72	52 - 139	58 - 126	
Heptachlor epoxide (1C) - DL	3.33	2.61		ug/Kg	78	55 - 133	65 - 137	
Methoxychlor (1C) - DL	33.6	27.2		ug/Kg	81	54 - 148	78 - 154	
p,p'-DDD (1C) - DL	6.71	16.3	*+	ug/Kg	243	59 - 135	57 - 150	X
p,p'-DDE (1C) - DL	6.71	5.82		ug/Kg	87	57 - 135	54 - 159	
p,p'-DDT (1C) - DL	6.71	12.8	*+	ug/Kg	190	53 - 151	56 - 147	X

Summary

Marginal Exceedance (ME) Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

<u>Number of Analytes Reported</u>	<u>Number of Marginal Exceedances Allowed</u>	<u>Number of Marginal Exceedances Found</u>
18	1	0

X = % Recovery is greater than widest possible limit

DRAFT

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

QC Association Summary

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

GC/MS VOA

Prep Batch: 201554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	5035	

Analysis Batch: 203772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	8260C	201554
MB 410-203772/8	Method Blank	Total/NA	Solid	8260C	
LCS 410-203772/5	Lab Control Sample	Total/NA	Solid	8260C	
LCS 410-203772/6	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 204249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Total/NA	Water	8260C	
MB 410-204249/6	Method Blank	Total/NA	Water	8260C	
LCS 410-204249/4	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 203249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Total/NA	Water	3510C	
MB 410-203249/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-203249/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 204373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-203249/1-A	Method Blank	Total/NA	Water	8270D	203249
LCS 410-203249/2-A	Lab Control Sample	Total/NA	Water	8270D	203249

Prep Batch: 204434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	3546	
MB 410-204434/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-204434/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 204549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Total/NA	Water	8270D	203249

Analysis Batch: 204722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	8270D	204434
MB 410-204434/1-A	Method Blank	Total/NA	Solid	8270D	204434
LCS 410-204434/2-A	Lab Control Sample	Total/NA	Solid	8270D	204434

GC Semi VOA

Prep Batch: 202747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Total/NA	Water	3510C	
MB 410-202747/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-202747/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 410-202747/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Eurofins Lancaster Laboratories Env, LLC

QC Association Summary

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

GC Semi VOA

Analysis Batch: 203188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Total/NA	Water	8081B	202747
MB 410-202747/1-A	Method Blank	Total/NA	Water	8081B	202747
LCS 410-202747/2-A	Lab Control Sample	Total/NA	Water	8081B	202747
LCSD 410-202747/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	202747

Prep Batch: 206011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	3546	
MB 410-206011/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-206011/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 206012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	3546	
MB 410-206012/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-206012/2-A - DL	Lab Control Sample	Total/NA	Solid	3546	
LCS 410-206012/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 206517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	8081B	206012
MB 410-206012/1-A	Method Blank	Total/NA	Solid	8081B	206012
LCS 410-206012/2-A	Lab Control Sample	Total/NA	Solid	8081B	206012

Analysis Batch: 206609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	8082A	206011
MB 410-206011/1-A	Method Blank	Total/NA	Solid	8082A	206011
LCS 410-206011/2-A	Lab Control Sample	Total/NA	Solid	8082A	206011

Analysis Batch: 206990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-206012/2-A - DL	Lab Control Sample	Total/NA	Solid	8081B	206012

Metals

Filtration Batch: 201918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Dissolved	Water	Filtration	

Prep Batch: 202142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Total Recoverable	Water	3005A	
MB 410-202142/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-202142/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 202148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	3050B	
MB 410-202148/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-202148/2-A	Lab Control Sample	Total/NA	Solid	3050B	

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Metals

Prep Batch: 202184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Dissolved	Water	7470A	201918
410-65597-2	BH-03	Total/NA	Water	7470A	
MB 410-202184/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-202184/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 202264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	7471B	
MB 410-202264/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-202264/2-A	Lab Control Sample	Total/NA	Solid	7471B	
410-65597-1 MS	BH-03 (0-0.5)	Total/NA	Solid	7471B	
410-65597-1 MSD	BH-03 (0-0.5)	Total/NA	Solid	7471B	
410-65597-1 DU	BH-03 (0-0.5)	Total/NA	Solid	7471B	

Analysis Batch: 202949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Dissolved	Water	7470A	202184
410-65597-2	BH-03	Total/NA	Water	7470A	202184
MB 410-202184/1-A	Method Blank	Total/NA	Water	7470A	202184
LCS 410-202184/2-A	Lab Control Sample	Total/NA	Water	7470A	202184

Analysis Batch: 203124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	7471B	202264
MB 410-202264/1-A	Method Blank	Total/NA	Solid	7471B	202264
LCS 410-202264/2-A	Lab Control Sample	Total/NA	Solid	7471B	202264
410-65597-1 MS	BH-03 (0-0.5)	Total/NA	Solid	7471B	202264
410-65597-1 MSD	BH-03 (0-0.5)	Total/NA	Solid	7471B	202264
410-65597-1 DU	BH-03 (0-0.5)	Total/NA	Solid	7471B	202264

Prep Batch: 203822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Dissolved	Water	Non-Digest Prep	201918
MB 410-203822/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-203822/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 203900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Dissolved	Water	6010D	203822
MB 410-203822/1-A	Method Blank	Total/NA	Water	6010D	203822
LCS 410-203822/2-A	Lab Control Sample	Total/NA	Water	6010D	203822

Analysis Batch: 203961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Total Recoverable	Water	6010D	202142
MB 410-202142/1-A	Method Blank	Total Recoverable	Water	6010D	202142
LCS 410-202142/2-A	Lab Control Sample	Total Recoverable	Water	6010D	202142

Analysis Batch: 204109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Total Recoverable	Water	6010D	202142

QC Association Summary

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Metals (Continued)

Analysis Batch: 204109 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-202142/1-A	Method Blank	Total Recoverable	Water	6010D	202142
LCS 410-202142/2-A	Lab Control Sample	Total Recoverable	Water	6010D	202142

Analysis Batch: 204209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Dissolved	Water	6010D	203822
MB 410-203822/1-A	Method Blank	Total/NA	Water	6010D	203822
LCS 410-203822/2-A	Lab Control Sample	Total/NA	Water	6010D	203822

Analysis Batch: 204230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	6010D	202148
MB 410-202148/1-A	Method Blank	Total/NA	Solid	6010D	202148
LCS 410-202148/2-A	Lab Control Sample	Total/NA	Solid	6010D	202148

Analysis Batch: 204241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Dissolved	Water	6010D	203822
MB 410-203822/1-A	Method Blank	Total/NA	Water	6010D	203822
LCS 410-203822/2-A	Lab Control Sample	Total/NA	Water	6010D	203822

Analysis Batch: 204866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	6010D	202148
MB 410-202148/1-A	Method Blank	Total/NA	Solid	6010D	202148
LCS 410-202148/2-A	Lab Control Sample	Total/NA	Solid	6010D	202148

Analysis Batch: 205156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	6010D	202148
MB 410-202148/1-A	Method Blank	Total/NA	Solid	6010D	202148
LCS 410-202148/2-A	Lab Control Sample	Total/NA	Solid	6010D	202148

General Chemistry

Analysis Batch: 201749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	Moisture	

Analysis Batch: 203694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Total/NA	Water	2340C-2011	
MB 410-203694/6	Method Blank	Total/NA	Water	2340C-2011	
LCS 410-203694/7	Lab Control Sample	Total/NA	Water	2340C-2011	
410-65597-2 DU	BH-03	Total/NA	Water	2340C-2011	

Analysis Batch: 205223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-2	BH-03	Total/NA	Water	5310C-2011	
MB 410-205223/36	Method Blank	Total/NA	Water	5310C-2011	
MB 410-205223/6	Method Blank	Total/NA	Water	5310C-2011	

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

General Chemistry (Continued)

Analysis Batch: 205223 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-205223/35	Lab Control Sample	Total/NA	Water	5310C-2011	

Analysis Batch: 382094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	EPA-Lloyd Kahn	
MB 180-382094/4	Method Blank	Total/NA	Solid	EPA-Lloyd Kahn	
LCS 180-382094/5	Lab Control Sample	Total/NA	Solid	EPA-Lloyd Kahn	

Geotechnical

Analysis Batch: 211137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-65597-1	BH-03 (0-0.5)	Total/NA	Solid	D422	

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Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Client Sample ID: BH-03 (0-0.5)

Lab Sample ID: 410-65597-1

Date Collected: 12/03/21 13:35

Matrix: Solid

Date Received: 12/04/21 10:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	201749	12/06/21 08:35	UWC1	ELLE
Total/NA	Analysis	D422		1	211137	12/17/21 12:25	DZU8	ELLE

Client Sample ID: BH-03 (0-0.5)

Lab Sample ID: 410-65597-1

Date Collected: 12/03/21 13:35

Matrix: Solid

Date Received: 12/04/21 10:03

Percent Solids: 46.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			201554	12/04/21 20:49	UK30	ELLE
Total/NA	Analysis	8260C		1	203772	12/10/21 19:05	SWV2	ELLE
Total/NA	Prep	3546			204434	12/13/21 09:15	H2LC	ELLE
Total/NA	Analysis	8270D		1	204722	12/14/21 02:19	SJ89	ELLE
Total/NA	Prep	3546			206012	12/16/21 09:58	H2LC	ELLE
Total/NA	Analysis	8081B		5	206517	12/17/21 09:59	WN70	ELLE
Total/NA	Prep	3546			206011	12/16/21 09:58	H2LC	ELLE
Total/NA	Analysis	8082A		1	206609	12/16/21 21:20	E9VJ	ELLE
Total/NA	Prep	3050B			202148	12/06/21 22:27	UJLA	ELLE
Total/NA	Analysis	6010D		1	204866	12/13/21 21:41	T8CQ	ELLE
Total/NA	Prep	3050B			202148	12/06/21 22:27	UJLA	ELLE
Total/NA	Analysis	6010D		1	204230	12/11/21 13:22	WBK6	ELLE
Total/NA	Prep	3050B			202148	12/06/21 22:27	UJLA	ELLE
Total/NA	Analysis	6010D		1	205156	12/14/21 11:00	WJM9	ELLE
Total/NA	Prep	7471B			202264	12/07/21 08:18	UJLA	ELLE
Total/NA	Analysis	7471B		1	203124	12/08/21 18:24	UEFS	ELLE
Total/NA	Analysis	EPA-Lloyd Kahn		1	382094	12/13/21 20:02	DLF	TAL PIT

Client Sample ID: BH-03

Lab Sample ID: 410-65597-2

Date Collected: 12/03/21 13:30

Matrix: Water

Date Received: 12/04/21 10:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	204249	12/12/21 02:17	UCB5	ELLE
Total/NA	Prep	3510C			203249	12/09/21 10:13	YDF5	ELLE
Total/NA	Analysis	8270D		1	204549	12/13/21 19:28	P7EB	ELLE
Total/NA	Prep	3510C			202747	12/08/21 08:43	BLX5	ELLE
Total/NA	Analysis	8081B		1	203188	12/09/21 11:45	WN70	ELLE
Dissolved	Filtration	Filtration			201918	12/06/21 14:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			203822	12/10/21 08:55	UAMX	ELLE
Dissolved	Analysis	6010D		1	204241	12/11/21 16:19	WBK6	ELLE
Dissolved	Filtration	Filtration			201918	12/06/21 14:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			203822	12/10/21 08:55	UAMX	ELLE
Dissolved	Analysis	6010D		1	203900	12/10/21 10:58	WJM9	ELLE
Dissolved	Filtration	Filtration			201918	12/06/21 14:00	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			203822	12/10/21 08:55	UAMX	ELLE
Dissolved	Analysis	6010D		1	204209	12/11/21 10:47	WBK6	ELLE

Lab Chronicle

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Client Sample ID: BH-03

Lab Sample ID: 410-65597-2

Date Collected: 12/03/21 13:30

Matrix: Water

Date Received: 12/04/21 10:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			202142	12/06/21 22:06	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	203961	12/10/21 12:23	WJM9	ELLE
Total Recoverable	Prep	3005A			202142	12/06/21 22:06	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	204109	12/10/21 21:17	T8CQ	ELLE
Dissolved	Filtration	Filtration			201918	12/06/21 14:00	UDL9	ELLE
Dissolved	Prep	7470A			202184	12/07/21 05:49	UAMX	ELLE
Dissolved	Analysis	7470A		1	202949	12/08/21 13:16	UEFS	ELLE
Total/NA	Prep	7470A			202184	12/07/21 05:49	UAMX	ELLE
Total/NA	Analysis	7470A		1	202949	12/08/21 12:33	UEFS	ELLE
Total/NA	Analysis	2340C-2011		5	203694	12/09/21 10:26	USAE	ELLE
Total/NA	Analysis	5310C-2011		1	205223	12/14/21 03:41	KGQ6	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL PIT = Eurofins Northeast, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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Accreditation/Certification Summary

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22

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
8260C	5035	Solid	m&p-Xylene
8260C	5035	Solid	o-Xylene
D422		Solid	0.001 mm
D422		Solid	0.002 mm
D422		Solid	0.005 mm
D422		Solid	0.02 mm
D422		Solid	0.05 mm
D422		Solid	0.064 mm
D422		Solid	0.075 mm
D422		Solid	0.15 mm
D422		Solid	0.3 mm
D422		Solid	0.6 mm
D422		Solid	1.18 mm
D422		Solid	19 mm
D422		Solid	2.36 mm
D422		Solid	3.35 mm
D422		Solid	37.5 mm
D422		Solid	4.75 mm
D422		Solid	75 mm
D422		Solid	Clay
D422		Solid	Gravel
D422		Solid	Sand
D422		Solid	Silt
Moisture		Solid	Percent Moisture

Laboratory: Eurofins Northeast, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	12-21-21
California	State	2891	04-30-22
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	12-21-21
Georgia	State	PA 02-00416	12-21-21
Illinois	NELAP	004375	12-21-21
Kansas	NELAP	E-10350	12-21-21
Kentucky (UST)	State	162013	04-30-22
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	12-21-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-21-21
Nevada	State	PA00164	08-31-22
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	12-21-21
New York	NELAP	11182	12-21-21
North Carolina (WW/SW)	State	434	12-21-21

Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Laboratory: Eurofins Northeast, Pittsburgh (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-227	12-21-21
Oregon	NELAP	PA-2151	12-21-21
Pennsylvania	NELAP	02-00416	12-21-21
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	12-21-21
Texas	NELAP	T104704528	12-21-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	12-21-21
Virginia	NELAP	10043	12-21-21
West Virginia DEP	State	142	12-21-21
Wisconsin	State	998027800	12-19-21

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Method Summary

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
6010D	Metals (ICP)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
7471B	Mercury (CVAA)	SW846	ELLE
2340C-2011	Hardness, Total	SM	ELLE
5310C-2011	Total Organic Carbon/Persulfate - Ultrav	SM	ELLE
EPA-Lloyd Kahn	Organic Carbon, Total (TOC)	EPA	TAL PIT
Moisture	Percent Moisture	EPA	ELLE
D422	Grain Size	ASTM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3050B	Preparation, Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE
7471B	Preparation, Mercury	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- None = None
- SM = "Standard Methods For The Examination Of Water And Wastewater"
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

- ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300
- TAL PIT = Eurofins Northeast, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058



Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria, VA

Job ID: 410-65597-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-65597-1	BH-03 (0-0.5)	Solid	12/03/21 13:35	12/04/21 10:03
410-65597-2	BH-03	Water	12/03/21 13:30	12/04/21 10:03

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>> Select a Laboratory or Service Center

Baltimore
#201

Chain of Custody



410-65597 Chain of Custody



Environment Testing
America

#N/A
#N/A
#N/A
##

Regulatory Program: DW NPDES RCRA Other

...ories, Inc. d/b/a Eurofins TestAmerica

Project Manager: <u>Philly Snyder</u>		COC No: <u>1</u>						
Client Contact: <u>POW ASSOCIATES</u>		Email: <u>A.Snyder@eurofins.com</u>						
Site Contact: <u>Philly NY</u>		Date: <u>12/3/2021</u>						
Your Company Name here		Tel/Fax:						
Address: <u>407 Heron Dr.</u>		Lab Contact:						
City/State/Zip: <u>Leggett, NJ 07025</u>		Carrier:						
(xxx) xxx-xxxx Phone: <u>856-485-8800</u>		TALS Project #:						
(xxx) xxx-xxxx FAX:		Sampler:						
Project Name: <u>Muser Alexandria</u>		For Lab Use Only:						
Site: <u>Alexandria, VA</u>		Walk-in Client:						
P O #		Lab Sampling:						
Analysis Turnaround Time		Job / SDG No.:						
<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS								
TAT if different from Below								
<input checked="" type="checkbox"/> 1 week								
<input type="checkbox"/> 2 days								
<input type="checkbox"/> 1 day								
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Sample Specific Notes:
BH-03 (10-0.5)	12/3/21	13:35	G	sed	6	X	X	
BH-03	12/3/21	13:30	G	SW	12	X	X	
Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.						Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months		
Special Instructions/QC Requirements & Comments:								
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: <u>0.4</u> Corr'd: <u>0.4</u>		Therm ID No.: <u>0142-03</u>		
Relinquished by: <u>[Signature]</u>		Company: <u>Roux</u>		Date/Time: <u>12/3/21</u>		Received by: <u>[Signature]</u>		Company: <u>[Signature]</u>
Relinquished by: <u>[Signature]</u>		Company: <u>PETA Batt</u>		Date/Time: <u>12/3/21 10:00</u>		Received by: <u>[Signature]</u>		Company: <u>[Signature]</u>
Relinquished by: <u>[Signature]</u>		Company: <u>[Signature]</u>		Date/Time: <u>[Signature]</u>		Received in Laboratory by: <u>[Signature]</u>		Company: <u>ELC</u>

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MS BB

Chain of Custody Record



410-65597 Chain of Custody

Client Information (Sub Contract Lab)		Sampler:	Lab PM:	410-65597 Chain of Custody		0.1	
Client Contact: Shipping/Receiving		Phone:	E-Mail:	State of Origin:	Page: Page 1 of 1		
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Virginia			Job #: 410-65597-1		
Address: 301 Alpha Drive, RIDC Park,		Due Date Requested:	Analysis Requested				Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:
City: Pittsburgh		TAT Requested (days):					
State, Zip: PA, 15238		PO #:					
Phone: 412-963-7058(Tel) 412-963-2468(Fax)		WO #:					
Email:		Project #:					
Project Name: Mueser - Alexandria, VA		SSOW#:	Field Filtered Sample (Yes or No)		Total Number of Containers		
Site:		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, An=Air)	Perform MS/MSD (Yes or No)	Special Instructions/Note:	
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Preservation Code:	Lloyd_Kahn_Mod		
BH-03 (0-0.5) (410-65597-1)		12/3/21	13:35 Eastern	Solid	X	1	
Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Env places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Env laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Env attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Lancaster Laboratories Env.							
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
Unconfirmed				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
<i>[Signature]</i>	12-9-2021 1513	ELLE	<i>[Signature]</i>	12-10-21 930	<i>[Signature]</i>		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:					

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Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-65597-1

Login Number: 65597

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Hess, Anna

Question	Answer	Comment
The cooler's custody seal is intact.	True	
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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	

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Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-65597-1

Login Number: 65597

List Number: 2

Creator: Watson, Debbie

List Source: Eurofins Northeast, Pittsburgh

List Creation: 12/10/21 02:04 PM

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.	True	
Sample custody seals, if present, are intact.	True	
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?	N/A	
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	



ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-66240-1
Client Project/Site: Mueser - Alexandria

For:

Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
1/10/2022 1:46:51 PM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

LINKS

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results through
Total Access

Have a Question?



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www.eurofinsus.com/Env

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Kelly Tessier

Kelly Tessier
Project Manager
1/10/2022 1:46:51 PM



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Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
cn	Refer to Case Narrative for further detail
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.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
^5+	Linear Range Check (LRC) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

Glossary (Continued)

Abbreviation **These commonly used abbreviations may or may not be present in this report.**

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
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

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Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

Job ID: 410-66240-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-66240-1

Receipt

The sample was received on 12/9/2021 5:40 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.3°C

GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-204740 recovered above the upper control limit for Acetone. Non-detects are reported. Any detection is considered estimated.

Method 8260C: The continuing calibration verification (CCV) analyzed in batch 410-204740 is compliant under 8260C method criteria for 1,4-Dioxane. The software does not display the % Drift data to the whole number as is listed in the method (i.e. limit of 20%). When applying the evaluation to a whole number, the check passes the criteria with a value of 20% Drift.

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: BH-12 (7.5-8.0) (410-66240-1). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) associated with batch 410-208188 recovered above the upper control limit for 2-Methylphenol and 4-Nitrophenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The method blank for preparation batch 410-207758 and analytical batch 410-208188 contained Benzo[g,h,i]perylene above the method detection limit (MDL). Associated sample BH-12 (7.5-8.0) (410-66240-1) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

PCBs

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

Pesticides

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

Metals

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

General Chemistry

Method Lloyd_Kahn_Mod: Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis. BH-12 (7.5-8.0) (410-66240-1), (410-66055-D-1), (410-66055-D-1 MS) and (410-66055-D-1 MSD)

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

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

Client Sample ID: BH-12 (7.5-8.0)

Lab Sample ID: 410-66240-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl acetate	230	J cn	820	160	ug/Kg	50	✱	8260C	Total/NA
2-Methylnaphthalene	50	cn	32	9.5	ug/Kg	1	✱	8270D	Total/NA
Acenaphthene	39	cn	32	6.3	ug/Kg	1	✱	8270D	Total/NA
Acenaphthylene	81	cn	32	7.6	ug/Kg	1	✱	8270D	Total/NA
Anthracene	92	cn	32	6.3	ug/Kg	1	✱	8270D	Total/NA
Benzaldehyde	130	J cn	320	63	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]anthracene	180	cn	32	6.3	ug/Kg	1	✱	8270D	Total/NA
Benzo[a]pyrene	220	cn	32	6.3	ug/Kg	1	✱	8270D	Total/NA
Benzo[b]fluoranthene	310	cn	32	6.3	ug/Kg	1	✱	8270D	Total/NA
Benzo[g,h,i]perylene	190	B cn	32	6.3	ug/Kg	1	✱	8270D	Total/NA
Benzo[k]fluoranthene	130	cn	32	6.3	ug/Kg	1	✱	8270D	Total/NA
Chrysene	260	cn	32	6.3	ug/Kg	1	✱	8270D	Total/NA
Dibenz(a,h)anthracene	48	cn	32	13	ug/Kg	1	✱	8270D	Total/NA
Fluoranthene	460	cn	32	6.3	ug/Kg	1	✱	8270D	Total/NA
Fluorene	45	cn	32	6.3	ug/Kg	1	✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	140	cn	32	7.6	ug/Kg	1	✱	8270D	Total/NA
Naphthalene	46	cn	32	13	ug/Kg	1	✱	8270D	Total/NA
Phenanthrene	200	cn	32	7.6	ug/Kg	1	✱	8270D	Total/NA
Pyrene	390	cn	32	6.3	ug/Kg	1	✱	8270D	Total/NA
Bis(2-ethylhexyl) phthalate - RA	380	cn	320	130	ug/Kg	1	✱	8270D	Total/NA
gamma-BHC (Lindane) (1C)	6.5	J p	26	6.5	ug/Kg	10	✱	8081B	Total/NA
gamma-Chlordane (1C)	28	p	26	7.7	ug/Kg	10	✱	8081B	Total/NA
p,p'-DDE (2C)	11	J p	52	10	ug/Kg	10	✱	8081B	Total/NA
PCB-1254 (1C)	29	J	32	12	ug/Kg	1	✱	8082A	Total/NA
PCB-1260 (2C)	24	J	32	12	ug/Kg	1	✱	8082A	Total/NA
Aluminum	24000		33	17	mg/Kg	1	✱	6010D	Total/NA
Arsenic	12		4.9	2.3	mg/Kg	1	✱	6010D	Total/NA
Barium	170		0.82	0.24	mg/Kg	1	✱	6010D	Total/NA
Beryllium	1.4		0.82	0.16	mg/Kg	1	✱	6010D	Total/NA
Cadmium	1.3		0.82	0.16	mg/Kg	1	✱	6010D	Total/NA
Calcium	5500		82	20	mg/Kg	1	✱	6010D	Total/NA
Chromium	40		2.4	0.29	mg/Kg	1	✱	6010D	Total/NA
Cobalt	24	^5+	0.82	0.24	mg/Kg	1	✱	6010D	Total/NA
Copper	69		3.3	1.3	mg/Kg	1	✱	6010D	Total/NA
Iron	34000		33	10	mg/Kg	1	✱	6010D	Total/NA
Lead	52		2.4	0.98	mg/Kg	1	✱	6010D	Total/NA
Magnesium	4400		16	6.5	mg/Kg	1	✱	6010D	Total/NA
Manganese	1100		1.6	0.85	mg/Kg	1	✱	6010D	Total/NA
Nickel	38	^5+	1.6	0.42	mg/Kg	1	✱	6010D	Total/NA
Potassium	2600		82	33	mg/Kg	1	✱	6010D	Total/NA
Sodium	130	J	160	75	mg/Kg	1	✱	6010D	Total/NA
Zinc	230		3.3	1.6	mg/Kg	1	✱	6010D	Total/NA
Vanadium	51		1.6	0.70	mg/Kg	1	✱	6010D	Total/NA
Mercury	0.27		0.11	0.045	mg/Kg	1	✱	7471B	Total/NA
Total Organic Carbon - Duplicates	34000	cn	1900	1900	mg/Kg	1	✱	EPA-Lloyd Kahn	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

Client Sample ID: BH-12 (7.5-8.0)

Lab Sample ID: 410-66240-1

Date Collected: 12/09/21 10:45

Matrix: Solid

Date Received: 12/09/21 17:40

Percent Solids: 52.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	66	U cn	820	66	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
trans-1,3-Dichloropropene	82	U cn	820	82	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Ethylbenzene	66	U cn	820	66	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Styrene	66	U cn	820	66	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
1,4-Dichlorobenzene	66	U cn	820	66	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
1,2-Dibromoethane	66	U cn	820	66	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
1,2-Dichloroethane	99	U cn	820	99	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
4-Methyl-2-pentanone	160	U cn	1600	160	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Methylcyclohexane	99	U cn	820	99	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Toluene	99	U cn	820	99	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Chlorobenzene	82	U cn	820	82	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Cyclohexane	82	U cn	820	82	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
1,2,4-Trichlorobenzene	820	U cn	1600	820	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
1,4-Dioxane	6100	U cn	41000	6100	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Dibromochloromethane	330	U cn	820	330	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Tetrachloroethene	82	U cn	820	82	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
cis-1,2-Dichloroethene	82	U cn	820	82	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
trans-1,2-Dichloroethene	82	U cn	820	82	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Methyl tertiary butyl ether	82	U cn	820	82	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
m&p-Xylene	160	U cn	820	160	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
1,3-Dichlorobenzene	82	U cn	820	82	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Carbon tetrachloride	330	U cn	820	330	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
2-Hexanone	160	U cn	1600	160	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Acetone	990	U cn	3300	990	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Chloroform	99	U cn	820	99	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Benzene	82	U cn	820	82	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
1,1,1-Trichloroethane	99	U cn	820	99	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Bromomethane	120	U cn	820	120	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Chloromethane	99	U cn	820	99	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Bromochloromethane	99	U cn	820	99	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Chloroethane	160	U cn	820	160	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Vinyl chloride	99	U cn	820	99	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Methylene Chloride	330	U cn	820	330	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Carbon disulfide	99	U cn	820	99	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Bromoform	820	U cn	1600	820	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Bromodichloromethane	66	U cn	820	66	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
1,1-Dichloroethane	82	U cn	820	82	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
1,1-Dichloroethene	82	U cn	820	82	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Trichlorofluoromethane	120	U cn	820	120	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Dichlorodifluoromethane	99	U cn	820	99	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Freon 113	99	U cn	1600	99	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
1,2-Dichloropropane	82	U cn	820	82	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
2-Butanone	330	U cn	1600	330	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
1,1,2-Trichloroethane	82	U cn	820	82	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Trichloroethene	82	U cn	820	82	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Methyl acetate	230	J cn	820	160	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
1,1,2,2-Tetrachloroethane	66	U cn	820	66	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
1,2,3-Trichlorobenzene	820	U cn	1600	820	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
o-Xylene	66	U cn	820	66	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

Client Sample ID: BH-12 (7.5-8.0)

Lab Sample ID: 410-66240-1

Date Collected: 12/09/21 10:45

Matrix: Solid

Date Received: 12/09/21 17:40

Percent Solids: 52.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	82	U cn	820	82	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
1,2-Dibromo-3-Chloropropane	160	U cn	820	160	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Isopropylbenzene	66	U cn	820	66	ug/Kg	✳	12/10/21 16:47	12/13/21 22:57	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103	cn	54 - 135				12/10/21 16:47	12/13/21 22:57	50
4-Bromofluorobenzene (Surr)	88	cn	50 - 131				12/10/21 16:47	12/13/21 22:57	50
Dibromofluoromethane (Surr)	96	cn	50 - 141				12/10/21 16:47	12/13/21 22:57	50
Toluene-d8 (Surr)	90	cn	52 - 141				12/10/21 16:47	12/13/21 22:57	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	32	U cn	70	32	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
1,2,4,5-Tetrachlorobenzene	32	U cn	70	32	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
2,2'-oxybis[1-chloropropane]	38	U cn	82	38	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
2,3,4,6-Tetrachlorophenol	130	U cn	320	130	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
2,4,5-Trichlorophenol	32	U cn	70	32	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
2,4,6-Trichlorophenol	32	U cn	70	32	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
2,4-Dichlorophenol	38	U cn	82	38	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
2,4-Dimethylphenol	32	U cn	70	32	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
2,4-Dinitrophenol	320	U cn	1900	320	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
2,4-Dinitrotoluene	63	U cn	320	63	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
2,6-Dinitrotoluene	32	U cn	70	32	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
2-Chloronaphthalene	25	U cn	63	25	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
2-Chlorophenol	32	U cn	70	32	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
2-Methylnaphthalene	50	cn	32	9.5	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
2-Methylphenol	38	U cn	95	38	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
2-Nitroaniline	32	U cn	95	32	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
2-Nitrophenol	38	U cn	95	38	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
3,3'-Dichlorobenzidine	63	U cn	320	63	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
3-Nitroaniline	63	U cn	320	63	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
4,6-Dinitro-2-methylphenol	320	U cn	950	320	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
4-Bromophenyl-phenylether	32	U cn	70	32	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
4-Chloro-3-methylphenol	38	U cn	95	38	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
4-Methylphenol	32	U cn	95	32	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
4-Nitroaniline	63	U cn	320	63	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
4-Nitrophenol	320	U cn	950	320	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
Acenaphthene	39	cn	32	6.3	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
Acenaphthylene	81	cn	32	7.6	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
Acetophenone	32	U cn	95	32	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
Anthracene	92	cn	32	6.3	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
Atrazine	130	U cn	320	130	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
Benzaldehyde	130	J cn	320	63	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
Benzo[a]anthracene	180	cn	32	6.3	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
Benzo[a]pyrene	220	cn	32	6.3	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
Benzo[b]fluoranthene	310	cn	32	6.3	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
Benzo[g,h,i]perylene	190	B cn	32	6.3	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
Benzo[k]fluoranthene	130	cn	32	6.3	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
Bis(2-chloroethoxy)methane	32	U cn	70	32	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1
Bis(2-chloroethyl)ether	32	U cn	70	32	ug/Kg	✳	12/21/21 11:08	12/22/21 08:16	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

Client Sample ID: BH-12 (7.5-8.0)

Lab Sample ID: 410-66240-1

Date Collected: 12/09/21 10:45

Matrix: Solid

Date Received: 12/09/21 17:40

Percent Solids: 52.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butylbenzylphthalate	130	U cn	320	130	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Caprolactam	63	U cn	320	63	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Carbazole	32	U cn	70	32	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Chrysene	260	cn	32	6.3	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Di-n-butyl phthalate	130	U cn	320	130	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Di-n-octyl phthalate	130	U cn	320	130	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Dibenz(a,h)anthracene	48	cn	32	13	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Dibenzofuran	32	U cn	70	32	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Diethyl phthalate	130	U cn	320	130	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Dimethyl phthalate	130	U cn	320	130	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Fluoranthene	460	cn	32	6.3	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Fluorene	45	cn	32	6.3	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Hexachlorobenzene	13	U cn	32	13	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Hexachlorobutadiene	38	U cn	95	38	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Hexachlorocyclopentadiene	320	U cn	950	320	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Hexachloroethane	63	U cn	320	63	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Indeno[1,2,3-cd]pyrene	140	cn	32	7.6	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Isophorone	32	U cn	130	32	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
N-Nitrosodi-n-propylamine	63	U cn	130	63	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
N-Nitrosodiphenylamine	32	U cn	70	32	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Naphthalene	46	cn	32	13	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Nitrobenzene	32	U cn	70	32	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Phenanthrene	200	cn	32	7.6	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Phenol	32	U cn	70	32	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Pyrene	390	cn	32	6.3	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1
Pentachlorophenol	130	U cn	320	130	ug/Kg	☼	12/21/21 11:08	12/22/21 08:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	84	cn	45 - 108	12/21/21 11:08	12/22/21 08:16	1
Nitrobenzene-d5 (Surr)	85	cn	32 - 97	12/21/21 11:08	12/22/21 08:16	1
2-Fluorophenol (Surr)	74	cn	26 - 96	12/21/21 11:08	12/22/21 08:16	1
2-Fluorobiphenyl (Surr)	77	cn	39 - 100	12/21/21 11:08	12/22/21 08:16	1
2,4,6-Tribromophenol (Surr)	47	cn	13 - 121	12/21/21 11:08	12/22/21 08:16	1
Phenol-d5 (Surr)	82	cn	27 - 104	12/21/21 11:08	12/22/21 08:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	380	cn	320	130	ug/Kg	☼	12/21/21 11:08	12/27/21 20:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	85	cn	45 - 108	12/21/21 11:08	12/27/21 20:47	1
Nitrobenzene-d5 (Surr)	66	cn	32 - 97	12/21/21 11:08	12/27/21 20:47	1
2-Fluorophenol (Surr)	72	cn	26 - 96	12/21/21 11:08	12/27/21 20:47	1
2-Fluorobiphenyl (Surr)	76	cn	39 - 100	12/21/21 11:08	12/27/21 20:47	1
2,4,6-Tribromophenol (Surr)	67	cn	13 - 121	12/21/21 11:08	12/27/21 20:47	1
Phenol-d5 (Surr)	70	cn	27 - 104	12/21/21 11:08	12/27/21 20:47	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	5.2	U	26	5.2	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

Client Sample ID: BH-12 (7.5-8.0)

Lab Sample ID: 410-66240-1

Date Collected: 12/09/21 10:45

Matrix: Solid

Date Received: 12/09/21 17:40

Percent Solids: 52.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC (1C)	5.2	U	26	5.2	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
alpha-Chlordane (1C)	5.2	U	26	5.2	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
beta-BHC (1C)	14	U	31	14	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
delta-BHC (1C)	14	U	31	14	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
Dieldrin (1C)	10	U	52	10	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
Endosulfan I (2C)	6.8	U	26	6.8	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
Endosulfan II (1C)	34	U	71	34	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
Endosulfan sulfate (1C)	10	U	52	10	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
Endrin (1C)	21	U	52	21	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
Endrin aldehyde (2C)	10	U	52	10	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
Endrin ketone (1C)	18	U	61	18	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
gamma-BHC (Lindane) (1C)	6.5	J p	26	6.5	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
gamma-Chlordane (1C)	28	p	26	7.7	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
Heptachlor (2C)	9.5	U	26	9.5	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
Heptachlor epoxide (1C)	5.2	U	26	5.2	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
Methoxychlor (1C)	55	U	210	55	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
Toxaphene (1C)	430	U	1000	430	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
p,p'-DDD (2C)	10	U	52	10	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
p,p'-DDE (2C)	11	J p	52	10	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10
p,p'-DDT (1C)	24	U	52	24	ug/Kg	☼	12/22/21 10:23	12/28/21 11:52	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	76		54 - 143	12/22/21 10:23	12/28/21 11:52	10
DCB Decachlorobiphenyl (Surr) (2C)	68		54 - 143	12/22/21 10:23	12/28/21 11:52	10
Tetrachloro-m-xylene (Surr) (1C)	56		20 - 131	12/22/21 10:23	12/28/21 11:52	10
Tetrachloro-m-xylene (Surr) (2C)	65		20 - 131	12/22/21 10:23	12/28/21 11:52	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	10	U	32	10	ug/Kg	☼	12/19/21 17:54	12/20/21 09:51	1
PCB-1221 (1C)	10	U	32	10	ug/Kg	☼	12/19/21 17:54	12/20/21 09:51	1
PCB-1232 (1C)	10	U	32	10	ug/Kg	☼	12/19/21 17:54	12/20/21 09:51	1
PCB-1242 (1C)	10	U	32	10	ug/Kg	☼	12/19/21 17:54	12/20/21 09:51	1
PCB-1248 (1C)	10	U	32	10	ug/Kg	☼	12/19/21 17:54	12/20/21 09:51	1
PCB-1254 (1C)	29	J	32	12	ug/Kg	☼	12/19/21 17:54	12/20/21 09:51	1
PCB-1260 (2C)	24	J	32	12	ug/Kg	☼	12/19/21 17:54	12/20/21 09:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	77		45 - 143	12/19/21 17:54	12/20/21 09:51	1
DCB Decachlorobiphenyl (Surr) (2C)	81		45 - 143	12/19/21 17:54	12/20/21 09:51	1
Tetrachloro-m-xylene (1C)	88		53 - 140	12/19/21 17:54	12/20/21 09:51	1
Tetrachloro-m-xylene (2C)	88		53 - 140	12/19/21 17:54	12/20/21 09:51	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.8	U	8.2	2.8	mg/Kg	☼	12/13/21 14:01	12/14/21 13:17	1
Aluminum	24000		33	17	mg/Kg	☼	12/13/21 14:01	12/14/21 13:17	1
Arsenic	12		4.9	2.3	mg/Kg	☼	12/13/21 14:01	12/17/21 00:16	1
Barium	170		0.82	0.24	mg/Kg	☼	12/13/21 14:01	12/14/21 13:17	1
Beryllium	1.4		0.82	0.16	mg/Kg	☼	12/13/21 14:01	12/14/21 13:17	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

Client Sample ID: BH-12 (7.5-8.0)

Lab Sample ID: 410-66240-1

Date Collected: 12/09/21 10:45

Matrix: Solid

Date Received: 12/09/21 17:40

Percent Solids: 52.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	1.3		0.82	0.16	mg/Kg	⊛	12/13/21 14:01	12/14/21 13:17	1
Calcium	5500		82	20	mg/Kg	⊛	12/13/21 14:01	12/14/21 13:17	1
Chromium	40		2.4	0.29	mg/Kg	⊛	12/13/21 14:01	12/14/21 13:17	1
Cobalt	24	^5+	0.82	0.24	mg/Kg	⊛	12/13/21 14:01	12/14/21 13:17	1
Copper	69		3.3	1.3	mg/Kg	⊛	12/13/21 14:01	12/14/21 13:17	1
Iron	34000		33	10	mg/Kg	⊛	12/13/21 14:01	12/14/21 13:17	1
Lead	52		2.4	0.98	mg/Kg	⊛	12/13/21 14:01	12/14/21 13:17	1
Magnesium	4400		16	6.5	mg/Kg	⊛	12/13/21 14:01	12/14/21 13:17	1
Manganese	1100		1.6	0.85	mg/Kg	⊛	12/13/21 14:01	12/14/21 13:17	1
Nickel	38	^5+	1.6	0.42	mg/Kg	⊛	12/13/21 14:01	12/14/21 13:17	1
Potassium	2600		82	33	mg/Kg	⊛	12/13/21 14:01	12/17/21 00:16	1
Selenium	2.4	U	8.2	2.4	mg/Kg	⊛	12/13/21 14:01	12/14/21 13:17	1
Silver	0.65	U ^5-	1.6	0.65	mg/Kg	⊛	12/13/21 14:01	12/14/21 13:17	1
Sodium	130	J	160	75	mg/Kg	⊛	12/13/21 14:01	12/14/21 13:17	1
Thallium	2.1	U ^3+ ^5+	4.9	2.1	mg/Kg	⊛	12/13/21 14:01	12/14/21 13:17	1
Zinc	230		3.3	1.6	mg/Kg	⊛	12/13/21 14:01	12/14/21 13:17	1
Vanadium	51		1.6	0.70	mg/Kg	⊛	12/13/21 14:01	12/14/21 13:17	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.27		0.11	0.045	mg/Kg	⊛	12/12/21 04:43	12/14/21 20:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	47.7		1.0	1.0	%			12/10/21 10:15	1

General Chemistry

Lab: Eurofins Pittsburgh

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	34000	cn	1900	1900	mg/Kg	⊛		12/20/21 16:20	1

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA	BFB	DBFM	TOL
		(54-135)	(50-131)	(50-141)	(52-141)
410-66240-1	BH-12 (7.5-8.0)	103 cn	88 cn	96 cn	90 cn
LCS 410-204740/4	Lab Control Sample	108	95	103	98
LCS 410-204740/5	Lab Control Sample Dup	108	96	103	99
MB 410-204740/7	Method Blank	107	89	99	96

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TPHd14	NBZ	2FP	FBP	TBP	PHL
		(45-108)	(32-97)	(26-96)	(39-100)	(13-121)	(27-104)
410-66240-1	BH-12 (7.5-8.0)	84 cn	85 cn	74 cn	77 cn	47 cn	82 cn
410-66240-1 - RA	BH-12 (7.5-8.0)	85 cn	66 cn	72 cn	76 cn	67 cn	70 cn
LCS 410-207758/2-A	Lab Control Sample	94	86	73	79	79	81
MB 410-207758/1-A	Method Blank	109 S1+	92	75	87	84	74

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1	DCB2	TCX1	TCX2
		(54-143)	(54-143)	(20-131)	(20-131)
410-66240-1	BH-12 (7.5-8.0)	76	68	56	65
LCS 410-208312/2-A	Lab Control Sample	73	68	60	56
MB 410-208312/1-A	Method Blank	86	85	62	61

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1	DCB2	TCX1	TCX2
		(45-143)	(45-143)	(53-140)	(53-140)
410-66240-1	BH-12 (7.5-8.0)	77	81	88	88
LCS 410-207230/2-A	Lab Control Sample	90	85	100	97

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Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1	DCB2	TCX1	TCX2
		(45-143)	(45-143)	(53-140)	(53-140)
MB 410-207230/1-A	Method Blank	98	92	106	98

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

DRAFT

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

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

Lab Sample ID: MB 410-204740/7
Matrix: Solid
Analysis Batch: 204740

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	20	U	250	20	ug/Kg			12/13/21 22:16	50
trans-1,3-Dichloropropene	25	U	250	25	ug/Kg			12/13/21 22:16	50
Ethylbenzene	20	U	250	20	ug/Kg			12/13/21 22:16	50
Styrene	20	U	250	20	ug/Kg			12/13/21 22:16	50
1,4-Dichlorobenzene	20	U	250	20	ug/Kg			12/13/21 22:16	50
1,2-Dibromoethane	20	U	250	20	ug/Kg			12/13/21 22:16	50
1,2-Dichloroethane	30	U	250	30	ug/Kg			12/13/21 22:16	50
4-Methyl-2-pentanone	50	U	500	50	ug/Kg			12/13/21 22:16	50
Methylcyclohexane	30	U	250	30	ug/Kg			12/13/21 22:16	50
Toluene	30	U	250	30	ug/Kg			12/13/21 22:16	50
Chlorobenzene	25	U	250	25	ug/Kg			12/13/21 22:16	50
Cyclohexane	25	U	250	25	ug/Kg			12/13/21 22:16	50
1,2,4-Trichlorobenzene	250	U	500	250	ug/Kg			12/13/21 22:16	50
1,4-Dioxane	1900	U	13000	1900	ug/Kg			12/13/21 22:16	50
Dibromochloromethane	100	U	250	100	ug/Kg			12/13/21 22:16	50
Tetrachloroethene	25	U	250	25	ug/Kg			12/13/21 22:16	50
cis-1,2-Dichloroethene	25	U	250	25	ug/Kg			12/13/21 22:16	50
trans-1,2-Dichloroethene	25	U	250	25	ug/Kg			12/13/21 22:16	50
Methyl tertiary butyl ether	25	U	250	25	ug/Kg			12/13/21 22:16	50
m&p-Xylene	50	U	250	50	ug/Kg			12/13/21 22:16	50
1,3-Dichlorobenzene	25	U	250	25	ug/Kg			12/13/21 22:16	50
Carbon tetrachloride	100	U	250	100	ug/Kg			12/13/21 22:16	50
2-Hexanone	50	U	500	50	ug/Kg			12/13/21 22:16	50
Acetone	300	U	1000	300	ug/Kg			12/13/21 22:16	50
Chloroform	30	U	250	30	ug/Kg			12/13/21 22:16	50
Benzene	25	U	250	25	ug/Kg			12/13/21 22:16	50
1,1,1-Trichloroethane	30	U	250	30	ug/Kg			12/13/21 22:16	50
Bromomethane	35	U	250	35	ug/Kg			12/13/21 22:16	50
Chloromethane	30	U	250	30	ug/Kg			12/13/21 22:16	50
Bromochloromethane	30	U	250	30	ug/Kg			12/13/21 22:16	50
Chloroethane	50	U	250	50	ug/Kg			12/13/21 22:16	50
Vinyl chloride	30	U	250	30	ug/Kg			12/13/21 22:16	50
Methylene Chloride	100	U	250	100	ug/Kg			12/13/21 22:16	50
Carbon disulfide	30	U	250	30	ug/Kg			12/13/21 22:16	50
Bromoform	250	U	500	250	ug/Kg			12/13/21 22:16	50
Bromodichloromethane	20	U	250	20	ug/Kg			12/13/21 22:16	50
1,1-Dichloroethane	25	U	250	25	ug/Kg			12/13/21 22:16	50
1,1-Dichloroethene	25	U	250	25	ug/Kg			12/13/21 22:16	50
Trichlorofluoromethane	35	U	250	35	ug/Kg			12/13/21 22:16	50
Dichlorodifluoromethane	30	U	250	30	ug/Kg			12/13/21 22:16	50
Freon 113	30	U	500	30	ug/Kg			12/13/21 22:16	50
1,2-Dichloropropane	25	U	250	25	ug/Kg			12/13/21 22:16	50
2-Butanone	100	U	500	100	ug/Kg			12/13/21 22:16	50
1,1,2-Trichloroethane	25	U	250	25	ug/Kg			12/13/21 22:16	50
Trichloroethene	25	U	250	25	ug/Kg			12/13/21 22:16	50
Methyl acetate	50	U	250	50	ug/Kg			12/13/21 22:16	50
1,1,2,2-Tetrachloroethane	20	U	250	20	ug/Kg			12/13/21 22:16	50
1,2,3-Trichlorobenzene	250	U	500	250	ug/Kg			12/13/21 22:16	50

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

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

Lab Sample ID: MB 410-204740/7
Matrix: Solid
Analysis Batch: 204740

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	20	U	250	20	ug/Kg			12/13/21 22:16	50
1,2-Dichlorobenzene	25	U	250	25	ug/Kg			12/13/21 22:16	50
1,2-Dibromo-3-Chloropropane	50	U	250	50	ug/Kg			12/13/21 22:16	50
Isopropylbenzene	20	U	250	20	ug/Kg			12/13/21 22:16	50

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	107		54 - 135		12/13/21 22:16	50
4-Bromofluorobenzene (Surr)	89		50 - 131		12/13/21 22:16	50
Dibromofluoromethane (Surr)	99		50 - 141		12/13/21 22:16	50
Toluene-d8 (Surr)	96		52 - 141		12/13/21 22:16	50

Lab Sample ID: LCS 410-204740/4
Matrix: Solid
Analysis Batch: 204740

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	1000	989		ug/Kg		99	68 - 122
Ethylbenzene	1000	940		ug/Kg		94	78 - 120
Styrene	1000	939		ug/Kg		94	76 - 120
1,4-Dichlorobenzene	1000	929		ug/Kg		93	80 - 120
1,2-Dibromoethane	1000	981		ug/Kg		98	76 - 120
1,2-Dichloroethane	1000	909		ug/Kg		91	71 - 128
4-Methyl-2-pentanone	12500	10500		ug/Kg		84	67 - 128
Methylcyclohexane	1000	954		ug/Kg		95	61 - 124
Toluene	1000	962		ug/Kg		96	80 - 120
Chlorobenzene	1000	997		ug/Kg		100	80 - 120
Cyclohexane	1000	867		ug/Kg		87	58 - 126
1,2,4-Trichlorobenzene	1000	884		ug/Kg		88	56 - 130
1,4-Dioxane	25000	26200		ug/Kg		105	62 - 131
Dibromochloromethane	1000	1060		ug/Kg		106	69 - 125
Tetrachloroethene	1000	1000		ug/Kg		100	73 - 120
cis-1,2-Dichloroethene	1000	1050		ug/Kg		105	80 - 125
trans-1,2-Dichloroethene	1000	1030		ug/Kg		103	80 - 126
Methyl tertiary butyl ether	1000	897		ug/Kg		90	72 - 120
m&p-Xylene	2000	1960		ug/Kg		98	80 - 120
1,3-Dichlorobenzene	1000	925		ug/Kg		92	75 - 120
Carbon tetrachloride	1000	1090		ug/Kg		109	64 - 134
2-Hexanone	12500	9590		ug/Kg		77	54 - 140
Acetone	12500	12500		ug/Kg		100	41 - 150
Chloroform	1000	971		ug/Kg		97	80 - 120
Benzene	1000	1000		ug/Kg		100	80 - 120
1,1,1-Trichloroethane	1000	1010		ug/Kg		101	69 - 123
Bromomethane	1000	872		ug/Kg		87	45 - 140
Chloromethane	1000	902		ug/Kg		90	56 - 120
Bromochloromethane	1000	1090		ug/Kg		109	72 - 124
Chloroethane	1000	898		ug/Kg		90	43 - 135
Vinyl chloride	1000	944		ug/Kg		94	52 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

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

Lab Sample ID: LCS 410-204740/4
Matrix: Solid
Analysis Batch: 204740

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	1000	1030		ug/Kg		103	76 - 122
Carbon disulfide	1000	1070		ug/Kg		107	64 - 133
Bromoform	1000	1020		ug/Kg		102	51 - 127
Bromodichloromethane	1000	1010		ug/Kg		101	70 - 120
1,1-Dichloroethane	1000	934		ug/Kg		93	79 - 120
1,1-Dichloroethene	1000	1090		ug/Kg		109	73 - 129
Trichlorofluoromethane	1000	985		ug/Kg		99	55 - 134
Dichlorodifluoromethane	1000	1010		ug/Kg		101	21 - 127
Freon 113	1000	1040		ug/Kg		104	64 - 135
1,2-Dichloropropane	1000	965		ug/Kg		96	80 - 120
2-Butanone	12500	9470		ug/Kg		76	57 - 128
1,1,2-Trichloroethane	1000	984		ug/Kg		98	80 - 120
Trichloroethene	1000	1020		ug/Kg		102	80 - 120
Methyl acetate	1000	885		ug/Kg		89	67 - 128
1,1,2,2-Tetrachloroethane	1000	936		ug/Kg		94	69 - 125
1,2,3-Trichlorobenzene	1000	857		ug/Kg		86	57 - 131
o-Xylene	1000	956		ug/Kg		96	75 - 120
1,2-Dichlorobenzene	1000	909		ug/Kg		91	76 - 120
1,2-Dibromo-3-Chloropropane	1000	748		ug/Kg		75	48 - 134
Isopropylbenzene	1000	946		ug/Kg		95	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	108		54 - 135
4-Bromofluorobenzene (Surr)	95		50 - 131
Dibromofluoromethane (Surr)	103		50 - 141
Toluene-d8 (Surr)	98		52 - 141

Lab Sample ID: LCSD 410-204740/5
Matrix: Solid
Analysis Batch: 204740

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	1000	994		ug/Kg		99	66 - 120	2	30
trans-1,3-Dichloropropene	1000	979		ug/Kg		98	68 - 122	1	30
Ethylbenzene	1000	947		ug/Kg		95	78 - 120	1	30
Styrene	1000	940		ug/Kg		94	76 - 120	0	30
1,4-Dichlorobenzene	1000	943		ug/Kg		94	80 - 120	2	30
1,2-Dibromoethane	1000	974		ug/Kg		97	76 - 120	1	30
1,2-Dichloroethane	1000	911		ug/Kg		91	71 - 128	0	30
4-Methyl-2-pentanone	12500	10600		ug/Kg		85	67 - 128	1	30
Methylcyclohexane	1000	940		ug/Kg		94	61 - 124	1	30
Toluene	1000	977		ug/Kg		98	80 - 120	2	30
Chlorobenzene	1000	1010		ug/Kg		101	80 - 120	1	30
Cyclohexane	1000	865		ug/Kg		86	58 - 126	0	30
1,2,4-Trichlorobenzene	1000	871		ug/Kg		87	56 - 130	1	30
1,4-Dioxane	25000	27100		ug/Kg		108	62 - 131	3	30
Dibromochloromethane	1000	1060		ug/Kg		106	69 - 125	0	30
Tetrachloroethene	1000	1000		ug/Kg		100	73 - 120	0	30

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

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

Lab Sample ID: LCSD 410-204740/5
Matrix: Solid
Analysis Batch: 204740

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	1000	1060		ug/Kg		106	80 - 125	1	30
trans-1,2-Dichloroethene	1000	1040		ug/Kg		104	80 - 126	1	30
Methyl tertiary butyl ether	1000	893		ug/Kg		89	72 - 120	0	30
m&p-Xylene	2000	1970		ug/Kg		99	80 - 120	1	30
1,3-Dichlorobenzene	1000	937		ug/Kg		94	75 - 120	1	30
Carbon tetrachloride	1000	1100		ug/Kg		110	64 - 134	0	30
2-Hexanone	12500	10400		ug/Kg		83	54 - 140	8	30
Acetone	12500	14500		ug/Kg		116	41 - 150	14	30
Chloroform	1000	970		ug/Kg		97	80 - 120	0	30
Benzene	1000	1010		ug/Kg		101	80 - 120	0	30
1,1,1-Trichloroethane	1000	1010		ug/Kg		101	69 - 123	0	30
Bromomethane	1000	943		ug/Kg		94	45 - 140	8	30
Chloromethane	1000	954		ug/Kg		95	56 - 120	6	30
Bromochloromethane	1000	1080		ug/Kg		108	72 - 124	0	30
Chloroethane	1000	967		ug/Kg		97	43 - 135	7	30
Vinyl chloride	1000	990		ug/Kg		99	52 - 120	5	30
Methylene Chloride	1000	1040		ug/Kg		104	76 - 122	2	30
Carbon disulfide	1000	1090		ug/Kg		109	64 - 133	1	30
Bromoform	1000	1010		ug/Kg		101	51 - 127	1	30
Bromodichloromethane	1000	1000		ug/Kg		100	70 - 120	1	30
1,1-Dichloroethane	1000	946		ug/Kg		95	79 - 120	1	30
1,1-Dichloroethene	1000	1090		ug/Kg		109	73 - 129	0	30
Trichlorofluoromethane	1000	997		ug/Kg		100	55 - 134	1	30
Dichlorodifluoromethane	1000	1030		ug/Kg		103	21 - 127	2	30
Freon 113	1000	1040		ug/Kg		104	64 - 135	0	30
1,2-Dichloropropane	1000	957		ug/Kg		96	80 - 120	1	30
2-Butanone	12500	10900		ug/Kg		87	57 - 128	14	30
1,1,2-Trichloroethane	1000	991		ug/Kg		99	80 - 120	1	30
Trichloroethene	1000	1010		ug/Kg		101	80 - 120	1	30
Methyl acetate	1000	958		ug/Kg		96	67 - 128	8	30
1,1,2,2-Tetrachloroethane	1000	941		ug/Kg		94	69 - 125	1	30
1,2,3-Trichlorobenzene	1000	869		ug/Kg		87	57 - 131	1	30
o-Xylene	1000	955		ug/Kg		95	75 - 120	0	30
1,2-Dichlorobenzene	1000	922		ug/Kg		92	76 - 120	1	30
1,2-Dibromo-3-Chloropropane	1000	768		ug/Kg		77	48 - 134	3	30
Isopropylbenzene	1000	951		ug/Kg		95	77 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	108		54 - 135
4-Bromofluorobenzene (Surr)	96		50 - 131
Dibromofluoromethane (Surr)	103		50 - 141
Toluene-d8 (Surr)	99		52 - 141

QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

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

Lab Sample ID: MB 410-207758/1-A
Matrix: Solid
Analysis Batch: 208188

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 207758

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1'-Biphenyl	17	U	37	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
1,2,4,5-Tetrachlorobenzene	17	U	37	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
2,2'-oxybis[1-chloropropane]	20	U	43	20	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
2,3,4,6-Tetrachlorophenol	67	U	170	67	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
2,4,5-Trichlorophenol	17	U	37	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
2,4,6-Trichlorophenol	17	U	37	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
2,4-Dichlorophenol	20	U	43	20	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
2,4-Dimethylphenol	17	U	37	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
2,4-Dinitrophenol	170	U	1000	170	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
2,4-Dinitrotoluene	33	U	170	33	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
2,6-Dinitrotoluene	17	U	37	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
2-Chloronaphthalene	13	U	33	13	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
2-Chlorophenol	17	U	37	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
2-Methylnaphthalene	5.0	U	17	5.0	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
2-Methylphenol	20	U	50	20	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
2-Nitroaniline	17	U	50	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
2-Nitrophenol	20	U	50	20	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
3,3'-Dichlorobenzidine	33	U	170	33	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
3-Nitroaniline	33	U	170	33	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
4,6-Dinitro-2-methylphenol	170	U	500	170	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
4-Bromophenyl-phenylether	17	U	37	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
4-Chloro-3-methylphenol	20	U	50	20	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
4-Methylphenol	17	U	50	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
4-Nitroaniline	33	U	170	33	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
4-Nitrophenol	170	U	500	170	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Acenaphthene	3.3	U	17	3.3	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Acenaphthylene	4.0	U	17	4.0	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Acetophenone	17	U	50	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Anthracene	3.3	U	17	3.3	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Atrazine	67	U	170	67	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Benzaldehyde	33	U	170	33	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Benzo[a]anthracene	3.3	U	17	3.3	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Benzo[a]pyrene	3.3	U	17	3.3	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Benzo[b]fluoranthene	3.3	U	17	3.3	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Benzo[g,h,i]perylene	16.7	J	17	3.3	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Benzo[k]fluoranthene	3.3	U	17	3.3	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Bis(2-chloroethoxy)methane	17	U	37	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Bis(2-chloroethyl)ether	17	U	37	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Bis(2-ethylhexyl) phthalate	67	U	170	67	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Butylbenzylphthalate	67	U	170	67	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Caprolactam	33	U	170	33	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Carbazole	17	U	37	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Chrysene	3.3	U	17	3.3	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Di-n-butyl phthalate	67	U	170	67	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Di-n-octyl phthalate	67	U	170	67	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Dibenz(a,h)anthracene	6.7	U	17	6.7	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Dibenzofuran	17	U	37	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Diethyl phthalate	67	U	170	67	ug/Kg		12/21/21 11:08	12/22/21 01:44	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

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

Lab Sample ID: MB 410-207758/1-A
Matrix: Solid
Analysis Batch: 208188

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 207758

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dimethyl phthalate	67	U	170	67	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Fluoranthene	3.3	U	17	3.3	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Fluorene	3.3	U	17	3.3	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Hexachlorobenzene	6.7	U	17	6.7	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Hexachlorobutadiene	20	U	50	20	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Hexachlorocyclopentadiene	170	U	500	170	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Hexachloroethane	33	U	170	33	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Indeno[1,2,3-cd]pyrene	4.0	U	17	4.0	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Isophorone	17	U	67	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
N-Nitrosodi-n-propylamine	33	U	67	33	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
N-Nitrosodiphenylamine	17	U	37	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Naphthalene	6.7	U	17	6.7	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Nitrobenzene	17	U	37	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Phenanthrene	4.0	U	17	4.0	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Phenol	17	U	37	17	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Pyrene	3.3	U	17	3.3	ug/Kg		12/21/21 11:08	12/22/21 01:44	1
Pentachlorophenol	67	U	170	67	ug/Kg		12/21/21 11:08	12/22/21 01:44	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
<i>p</i> -Terphenyl-d14 (Surr)	109	S1+	45 - 108	12/21/21 11:08	12/22/21 01:44	1
Nitrobenzene-d5 (Surr)	92		32 - 97	12/21/21 11:08	12/22/21 01:44	1
2-Fluorophenol (Surr)	75		26 - 96	12/21/21 11:08	12/22/21 01:44	1
2-Fluorobiphenyl (Surr)	87		39 - 100	12/21/21 11:08	12/22/21 01:44	1
2,4,6-Tribromophenol (Surr)	84		13 - 121	12/21/21 11:08	12/22/21 01:44	1
Phenol-d5 (Surr)	74		27 - 104	12/21/21 11:08	12/22/21 01:44	1

Lab Sample ID: LCS 410-207758/2-A
Matrix: Solid
Analysis Batch: 208188

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 207758

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	1670	1340		ug/Kg		81	60 - 120
2,2'-oxybis[1-chloropropane]	1670	1370		ug/Kg		82	48 - 120
2,3,4,6-Tetrachlorophenol	1670	1220		ug/Kg		73	59 - 120
2,4,5-Trichlorophenol	1670	1300		ug/Kg		78	61 - 120
2,4,6-Trichlorophenol	1670	1270		ug/Kg		76	59 - 120
2,4-Dichlorophenol	1670	1640		ug/Kg		98	62 - 120
2,4-Dimethylphenol	1670	1540		ug/Kg		92	65 - 120
2,4-Dinitrophenol	3330	1870		ug/Kg		56	44 - 120
2,4-Dinitrotoluene	1670	1480		ug/Kg		89	68 - 120
2,6-Dinitrotoluene	1670	1490		ug/Kg		89	67 - 120
2-Chloronaphthalene	1670	1300		ug/Kg		78	61 - 120
2-Chlorophenol	1670	1270		ug/Kg		76	59 - 120
2-Methylnaphthalene	1670	1470		ug/Kg		88	63 - 120
2-Methylphenol	1670	1350		ug/Kg		81	63 - 120
2-Nitroaniline	1670	1400		ug/Kg		84	64 - 120
2-Nitrophenol	1670	1350		ug/Kg		81	55 - 120

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

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

Lab Sample ID: LCS 410-207758/2-A

Matrix: Solid

Analysis Batch: 208188

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 207758

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3,3'-Dichlorobenzidine	3330	1520		ug/Kg		46	19 - 120
3-Nitroaniline	1670	936		ug/Kg		56	31 - 120
4,6-Dinitro-2-methylphenol	3330	3380		ug/Kg		101	59 - 120
4-Bromophenyl-phenylether	1670	1680		ug/Kg		101	65 - 120
4-Chloro-3-methylphenol	1670	1540		ug/Kg		93	67 - 120
4-Methylphenol	1670	1330		ug/Kg		80	56 - 120
4-Nitroaniline	1670	1170		ug/Kg		70	59 - 120
4-Nitrophenol	3330	2390		ug/Kg		72	58 - 120
Acenaphthene	1670	1310		ug/Kg		79	61 - 120
Acenaphthylene	1670	1380		ug/Kg		83	69 - 120
Acetophenone	1670	1180		ug/Kg		71	54 - 120
Anthracene	1670	1600		ug/Kg		96	75 - 120
Atrazine	1670	1460		ug/Kg		87	63 - 127
Benzaldehyde	1670	1010		ug/Kg		61	25 - 120
Benzo[a]anthracene	1670	1390		ug/Kg		83	73 - 120
Benzo[a]pyrene	1670	1590		ug/Kg		95	80 - 123
Benzo[b]fluoranthene	1670	1310		ug/Kg		78	63 - 120
Benzo[g,h,i]perylene	1670	1460		ug/Kg		88	77 - 120
Benzo[k]fluoranthene	1670	1650		ug/Kg		99	68 - 120
Bis(2-chloroethoxy)methane	1670	1380		ug/Kg		83	55 - 120
Bis(2-chloroethyl)ether	1670	1330		ug/Kg		80	49 - 120
Bis(2-ethylhexyl) phthalate	1670	1330		ug/Kg		80	65 - 120
Butylbenzylphthalate	1670	1290		ug/Kg		77	66 - 120
Caprolactam	1670	1210		ug/Kg		72	54 - 120
Carbazole	1670	1630		ug/Kg		98	74 - 120
Chrysene	1670	1500		ug/Kg		90	66 - 120
Di-n-butyl phthalate	1670	1600		ug/Kg		96	65 - 120
Di-n-octyl phthalate	1670	1340		ug/Kg		81	60 - 125
Dibenz(a,h)anthracene	1670	1590		ug/Kg		96	72 - 120
Dibenzofuran	1670	1350		ug/Kg		81	68 - 120
Diethyl phthalate	1670	1360		ug/Kg		82	65 - 120
Dimethyl phthalate	1670	1410		ug/Kg		84	67 - 120
Fluoranthene	1670	1630		ug/Kg		98	71 - 120
Fluorene	1670	1480		ug/Kg		89	68 - 120
Hexachlorobenzene	1670	1630		ug/Kg		98	58 - 120
Hexachlorobutadiene	1670	1540		ug/Kg		92	48 - 120
Hexachlorocyclopentadiene	1670	1340		ug/Kg		80	43 - 120
Hexachloroethane	1670	1230		ug/Kg		74	48 - 120
Indeno[1,2,3-cd]pyrene	1670	1520		ug/Kg		91	71 - 122
Isophorone	1670	1480		ug/Kg		89	62 - 120
N-Nitrosodi-n-propylamine	1670	1360		ug/Kg		81	55 - 120
N-Nitrosodiphenylamine	1420	1430		ug/Kg		101	71 - 120
Naphthalene	1670	1340		ug/Kg		81	60 - 120
Nitrobenzene	1670	1540		ug/Kg		92	56 - 120
Phenanthrene	1670	1550		ug/Kg		93	74 - 120
Phenol	1670	1390		ug/Kg		84	57 - 120
Pyrene	1670	1410		ug/Kg		84	70 - 120
Pentachlorophenol	3330	2030		ug/Kg		61	41 - 120

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

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

Lab Sample ID: LCS 410-207758/2-A
Matrix: Solid
Analysis Batch: 208188

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 207758

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
p-Terphenyl-d14 (Surr)	94		45 - 108
Nitrobenzene-d5 (Surr)	86		32 - 97
2-Fluorophenol (Surr)	73		26 - 96
2-Fluorobiphenyl (Surr)	79		39 - 100
2,4,6-Tribromophenol (Surr)	79		13 - 121
Phenol-d5 (Surr)	81		27 - 104

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-208312/1-A
Matrix: Solid
Analysis Batch: 209473

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 208312

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin (1C)	0.17	U	0.83	0.17	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
alpha-BHC (1C)	0.17	U	0.83	0.17	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
alpha-Chlordane (1C)	0.17	U	0.83	0.17	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
beta-BHC (1C)	0.44	U	1.0	0.44	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
delta-BHC (1C)	0.45	U	1.0	0.45	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
Dieldrin (1C)	0.33	U	1.7	0.33	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
Endosulfan I (1C)	0.22	U	0.83	0.22	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
Endosulfan II (1C)	1.1	U	2.3	1.1	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
Endosulfan sulfate (1C)	0.33	U	1.7	0.33	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
Endrin (1C)	0.68	U	1.7	0.68	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
Endrin aldehyde (1C)	0.33	U	1.7	0.33	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
Endrin ketone (1C)	0.60	U	2.0	0.60	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
gamma-BHC (Lindane) (1C)	0.21	U	0.83	0.21	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
gamma-Chlordane (1C)	0.25	U	0.83	0.25	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
Heptachlor (1C)	0.31	U	0.83	0.31	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
Heptachlor epoxide (1C)	0.17	U	0.83	0.17	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
Methoxychlor (1C)	1.8	U	6.7	1.8	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
Toxaphene (1C)	14	U	33	14	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
p,p'-DDD (1C)	0.33	U	1.7	0.33	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
p,p'-DDE (1C)	0.33	U	1.7	0.33	ug/Kg		12/22/21 10:23	12/28/21 08:37	1
p,p'-DDT (1C)	0.79	U	1.7	0.79	ug/Kg		12/22/21 10:23	12/28/21 08:37	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	86		54 - 143	12/22/21 10:23	12/28/21 08:37	1
DCB Decachlorobiphenyl (Surr) (2C)	85		54 - 143	12/22/21 10:23	12/28/21 08:37	1
Tetrachloro-m-xylene (Surr) (1C)	62		20 - 131	12/22/21 10:23	12/28/21 08:37	1
Tetrachloro-m-xylene (Surr) (2C)	61		20 - 131	12/22/21 10:23	12/28/21 08:37	1

Lab Sample ID: LCS 410-208312/2-A
Matrix: Solid
Analysis Batch: 209473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208312

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Aldrin (1C)	3.33	2.59		ug/Kg		78	56 - 134

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

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

Lab Sample ID: LCS 410-208312/2-A
Matrix: Solid
Analysis Batch: 209473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208312

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha-BHC (1C)	3.33	2.39		ug/Kg		72	55 - 135
beta-BHC (1C)	3.33	2.40		ug/Kg		72	50 - 132
delta-BHC (1C)	3.33	1.72		ug/Kg		52	47 - 141
Dieldrin (1C)	6.67	5.39		ug/Kg		81	54 - 136
Endosulfan I (1C)	3.33	2.39		ug/Kg		72	51 - 124
Endosulfan II (1C)	6.67	4.96		ug/Kg		74	56 - 125
Endosulfan sulfate (1C)	6.67	5.16		ug/Kg		77	56 - 125
Endrin (1C)	6.67	5.45		ug/Kg		82	56 - 129
Endrin aldehyde (1C)	6.67	4.33		ug/Kg		65	46 - 133
Endrin ketone (1C)	6.67	4.76		ug/Kg		71	55 - 128
gamma-BHC (Lindane) (1C)	3.33	2.38		ug/Kg		72	52 - 138
Heptachlor (1C)	3.33	2.40		ug/Kg		72	52 - 139
Heptachlor epoxide (1C)	3.33	2.60		ug/Kg		78	55 - 133
Methoxychlor (1C)	33.3	27.3		ug/Kg		82	54 - 148
p,p'-DDD (1C)	6.67	6.02		ug/Kg		90	59 - 135
p,p'-DDE (1C)	6.67	5.61		ug/Kg		84	57 - 135
p,p'-DDT (1C)	6.67	5.45		ug/Kg		82	53 - 151

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	73		54 - 143
DCB Decachlorobiphenyl (Surr) (2C)	68		54 - 143
Tetrachloro-m-xylene (Surr) (1C)	60		20 - 131
Tetrachloro-m-xylene (Surr) (2C)	56		20 - 131

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

Lab Sample ID: MB 410-207230/1-A
Matrix: Solid
Analysis Batch: 207412

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 207230

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	5.3	U	17	5.3	ug/Kg		12/19/21 17:54	12/20/21 08:38	1
PCB-1221 (1C)	5.3	U	17	5.3	ug/Kg		12/19/21 17:54	12/20/21 08:38	1
PCB-1232 (1C)	5.3	U	17	5.3	ug/Kg		12/19/21 17:54	12/20/21 08:38	1
PCB-1242 (1C)	5.3	U	17	5.3	ug/Kg		12/19/21 17:54	12/20/21 08:38	1
PCB-1248 (1C)	5.3	U	17	5.3	ug/Kg		12/19/21 17:54	12/20/21 08:38	1
PCB-1254 (1C)	6.4	U	17	6.4	ug/Kg		12/19/21 17:54	12/20/21 08:38	1
PCB-1260 (1C)	6.4	U	17	6.4	ug/Kg		12/19/21 17:54	12/20/21 08:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	98		45 - 143	12/19/21 17:54	12/20/21 08:38	1
DCB Decachlorobiphenyl (Surr) (2C)	92		45 - 143	12/19/21 17:54	12/20/21 08:38	1
Tetrachloro-m-xylene (1C)	106		53 - 140	12/19/21 17:54	12/20/21 08:38	1
Tetrachloro-m-xylene (2C)	98		53 - 140	12/19/21 17:54	12/20/21 08:38	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

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

Lab Sample ID: LCS 410-207230/2-A
Matrix: Solid
Analysis Batch: 207412

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 207230

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016 (2C)	167	150		ug/Kg		90	68 - 121
PCB-1260 (1C)	168	167		ug/Kg		99	75 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	90		45 - 143
DCB Decachlorobiphenyl (Surr) (2C)	85		45 - 143
Tetrachloro-m-xylene (1C)	100		53 - 140
Tetrachloro-m-xylene (2C)	97		53 - 140

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-204700/1-A
Matrix: Solid
Analysis Batch: 205247

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 204700

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.7	U	5.0	1.7	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Aluminum	11	U	20	11	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Barium	0.15	U	0.50	0.15	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Beryllium	0.10	U	0.50	0.10	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Cadmium	0.10	U	0.50	0.10	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Calcium	12	U	50	12	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Chromium	0.18	U	1.5	0.18	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Cobalt	0.15	U ^5+	0.50	0.15	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Copper	0.77	U	2.0	0.77	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Iron	6.2	U	20	6.2	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Lead	0.60	U	1.5	0.60	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Magnesium	4.0	U	10	4.0	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Manganese	0.52	U	1.0	0.52	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Nickel	0.26	U ^5+	1.0	0.26	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Selenium	1.5	U	5.0	1.5	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Silver	0.40	U ^5-	1.0	0.40	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Sodium	46	U	100	46	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Thallium	1.43	J ^3+ ^5+	3.0	1.3	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Zinc	1.0	U	2.0	1.0	mg/Kg		12/13/21 14:01	12/14/21 12:49	1
Vanadium	0.43	U	1.0	0.43	mg/Kg		12/13/21 14:01	12/14/21 12:49	1

Lab Sample ID: MB 410-204700/1-A
Matrix: Solid
Analysis Batch: 206258

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 204700

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.4	U ^+	3.0	1.4	mg/Kg		12/13/21 14:01	12/16/21 11:36	1
Potassium	20	U ^3+	50	20	mg/Kg		12/13/21 14:01	12/16/21 11:36	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

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

Lab Sample ID: LCS 410-204700/2-A
Matrix: Solid
Analysis Batch: 205247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 204700
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	10.0	9.98		mg/Kg		100	80 - 120
Aluminum	500	496		mg/Kg		99	80 - 120
Barium	50.0	52.2		mg/Kg		104	80 - 120
Beryllium	5.00	5.25		mg/Kg		105	80 - 120
Cadmium	5.00	5.21		mg/Kg		104	80 - 120
Calcium	500	515		mg/Kg		103	80 - 120
Chromium	50.0	52.2		mg/Kg		104	80 - 120
Cobalt	50.0	53.3	^5+	mg/Kg		107	80 - 120
Copper	50.0	52.2		mg/Kg		104	80 - 120
Iron	500	517		mg/Kg		103	80 - 120
Lead	5.00	5.02		mg/Kg		100	80 - 120
Magnesium	500	517		mg/Kg		103	80 - 120
Manganese	50.0	52.4		mg/Kg		105	80 - 120
Nickel	50.0	53.0	^5+	mg/Kg		106	80 - 120
Selenium	10.0	8.73		mg/Kg		87	80 - 120
Silver	5.00	4.97	^5-	mg/Kg		99	80 - 120
Sodium	500	516		mg/Kg		103	80 - 120
Thallium	9.99	10.4	^3+ ^5+	mg/Kg		104	80 - 120
Zinc	50.0	50.6		mg/Kg		101	80 - 120
Vanadium	50.0	51.0		mg/Kg		102	80 - 120

Lab Sample ID: LCS 410-204700/2-A
Matrix: Solid
Analysis Batch: 206475

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 204700
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	50.0	53.0		mg/Kg		106	80 - 120
Potassium	500	539		mg/Kg		108	80 - 120

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-203800/1-A
Matrix: Solid
Analysis Batch: 205413

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 203800

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	U	0.036	0.015	mg/Kg		12/10/21 08:49	12/14/21 19:54	1

Lab Sample ID: LCS 410-203800/2-A
Matrix: Solid
Analysis Batch: 205413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 203800
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.100	0.0945		mg/Kg		94	80 - 120

QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

Method: EPA-Lloyd Kahn - Organic Carbon, Total (TOC)

Lab Sample ID: MB 180-382997/4
Matrix: Solid
Analysis Batch: 382997

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	970	U	1000	970	mg/Kg			12/20/21 13:01	1

Lab Sample ID: LCS 180-382997/5
Matrix: Solid
Analysis Batch: 382997

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	38200	32700		mg/Kg		86	75 - 125

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QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

GC/MS VOA

Prep Batch: 204049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1	BH-12 (7.5-8.0)	Total/NA	Solid	5035	

Analysis Batch: 204740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1	BH-12 (7.5-8.0)	Total/NA	Solid	8260C	204049
MB 410-204740/7	Method Blank	Total/NA	Solid	8260C	
LCS 410-204740/4	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-204740/5	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 207758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1 - RA	BH-12 (7.5-8.0)	Total/NA	Solid	3546	
410-66240-1	BH-12 (7.5-8.0)	Total/NA	Solid	3546	
MB 410-207758/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-207758/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 208188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1	BH-12 (7.5-8.0)	Total/NA	Solid	8270D	207758
MB 410-207758/1-A	Method Blank	Total/NA	Solid	8270D	207758
LCS 410-207758/2-A	Lab Control Sample	Total/NA	Solid	8270D	207758

Analysis Batch: 209167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1 - RA	BH-12 (7.5-8.0)	Total/NA	Solid	8270D	207758

GC Semi VOA

Prep Batch: 207230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1	BH-12 (7.5-8.0)	Total/NA	Solid	3546	
MB 410-207230/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-207230/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 207412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1	BH-12 (7.5-8.0)	Total/NA	Solid	8082A	207230
MB 410-207230/1-A	Method Blank	Total/NA	Solid	8082A	207230
LCS 410-207230/2-A	Lab Control Sample	Total/NA	Solid	8082A	207230

Prep Batch: 208312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1	BH-12 (7.5-8.0)	Total/NA	Solid	3546	
MB 410-208312/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-208312/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 209473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1	BH-12 (7.5-8.0)	Total/NA	Solid	8081B	208312
MB 410-208312/1-A	Method Blank	Total/NA	Solid	8081B	208312

Eurofins Lancaster Laboratories Env, LLC

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

GC Semi VOA (Continued)

Analysis Batch: 209473 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-208312/2-A	Lab Control Sample	Total/NA	Solid	8081B	208312

Metals

Prep Batch: 203800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1	BH-12 (7.5-8.0)	Total/NA	Solid	7471B	
MB 410-203800/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-203800/2-A	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 204700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1	BH-12 (7.5-8.0)	Total/NA	Solid	3050B	
MB 410-204700/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-204700/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 205247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1	BH-12 (7.5-8.0)	Total/NA	Solid	6010D	204700
MB 410-204700/1-A	Method Blank	Total/NA	Solid	6010D	204700
LCS 410-204700/2-A	Lab Control Sample	Total/NA	Solid	6010D	204700

Analysis Batch: 205413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1	BH-12 (7.5-8.0)	Total/NA	Solid	7471B	203800
MB 410-203800/1-A	Method Blank	Total/NA	Solid	7471B	203800
LCS 410-203800/2-A	Lab Control Sample	Total/NA	Solid	7471B	203800

Analysis Batch: 206258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-204700/1-A	Method Blank	Total/NA	Solid	6010D	204700

Analysis Batch: 206475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1	BH-12 (7.5-8.0)	Total/NA	Solid	6010D	204700
LCS 410-204700/2-A	Lab Control Sample	Total/NA	Solid	6010D	204700

General Chemistry

Analysis Batch: 203861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1	BH-12 (7.5-8.0)	Total/NA	Solid	Moisture	

Analysis Batch: 382997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1	BH-12 (7.5-8.0)	Total/NA	Solid	EPA-Lloyd Kahn	
MB 180-382997/4	Method Blank	Total/NA	Solid	EPA-Lloyd Kahn	
LCS 180-382997/5	Lab Control Sample	Total/NA	Solid	EPA-Lloyd Kahn	

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

Client Sample ID: BH-12 (7.5-8.0)

Lab Sample ID: 410-66240-1

Date Collected: 12/09/21 10:45

Matrix: Solid

Date Received: 12/09/21 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	203861	12/10/21 10:15	UWC1	ELLE

Client Sample ID: BH-12 (7.5-8.0)

Lab Sample ID: 410-66240-1

Date Collected: 12/09/21 10:45

Matrix: Solid

Date Received: 12/09/21 17:40

Percent Solids: 52.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			204049	12/10/21 16:47	D8NM	ELLE
Total/NA	Analysis	8260C		50	204740	12/13/21 22:57	SWV2	ELLE
Total/NA	Prep	3546	RA		207758	12/21/21 11:08	U9KU	ELLE
Total/NA	Analysis	8270D	RA	1	209167	12/27/21 20:47	DZ6A	ELLE
Total/NA	Prep	3546			207758	12/21/21 11:08	U9KU	ELLE
Total/NA	Analysis	8270D		1	208188	12/22/21 08:16	DZ6A	ELLE
Total/NA	Prep	3546			208312	12/22/21 10:23	U9KU	ELLE
Total/NA	Analysis	8081B		10	209473	12/28/21 11:52	WN7O	ELLE
Total/NA	Prep	3546			207230	12/19/21 17:54	D7SW	ELLE
Total/NA	Analysis	8082A		1	207412	12/20/21 09:51	JC94	ELLE
Total/NA	Prep	3050B			204700	12/13/21 14:01	UJLA	ELLE
Total/NA	Analysis	6010D		1	205247	12/14/21 13:17	WJM9	ELLE
Total/NA	Prep	3050B			204700	12/13/21 14:01	UJLA	ELLE
Total/NA	Analysis	6010D		1	206475	12/17/21 00:16	T8CQ	ELLE
Total/NA	Prep	7471B			203800	12/12/21 04:43	UAMX	ELLE
Total/NA	Analysis	7471B		1	205413	12/14/21 20:20	UEFS	ELLE
Total/NA	Analysis	EPA-Lloyd Kahn		1	382997	12/20/21 16:20	DLF	TAL PIT

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22
<p>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.</p>			
Analysis Method	Prep Method	Matrix	Analyte
8260C	5035	Solid	m&p-Xylene
8260C	5035	Solid	o-Xylene
Moisture		Solid	Percent Moisture

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	12-21-21
California	State	2891	04-30-22
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	12-21-21
Georgia	State	PA 02-00416	12-21-21
Illinois	NELAP	004375	12-21-21
Kansas	NELAP	E-10350	12-21-21
Kentucky (UST)	State	162013	04-30-22
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	12-21-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-21-21
Nevada	State	PA00164	08-31-22
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	12-21-21
New York	NELAP	11182	12-21-21
North Carolina (WW/SW)	State	434	12-21-21
North Dakota	State	R-227	12-21-21
Oregon	NELAP	PA-2151	12-21-21
Pennsylvania	NELAP	02-00416	12-21-21
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	12-21-21
Texas	NELAP	T104704528	12-21-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	12-21-21
Virginia	NELAP	10043	12-21-21
West Virginia DEP	State	142	12-21-21
Wisconsin	State	998027800	08-31-22

Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
6010D	Metals (ICP)	SW846	ELLE
7471B	Mercury (CVAA)	SW846	ELLE
EPA-Lloyd Kahn	Organic Carbon, Total (TOC)	EPA	TAL PIT
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
7471B	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-66240-1	BH-12 (7.5-8.0)	Solid	12/09/21 10:45	12/09/21 17:40

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#N/A
#N/A
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410-66240 Chain of Custody

Chain of Custody Record

eurofins Environment Testing America

Regulatory Program: DW NPDES RCRA Other: VA-DEP

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact		Project Manager: Ashley Sweeney		Site Contact: Polly N		Date: 12/9/2021		COC No: 1 of 1 COCs	
Your Company Name here: ROLX ASSOCIATES		Email: asweeney@rolx inc.com		Lab Contact:		Carrier:		TALS Project #:	
Address: 407 HEMO DRIVE		Analysis Turnaround Time		Filtered Sample (Y/N) Perform MS / MSD (Y / N) D422 - CHLOROFORM X2100 - TOLUENE SOLID 2 METHANOL - 90% MASTIC X7700 - TOLUENE X8081B - TOLUENE X8082A - Groundwater PCB list W0000 - TAL METALS (Total) 7471B - MERCURY W0000 - TAL		Sampler: For Lab Use Only: Walk-in Client: Lab Sampling:		Job / SDG No.:	
City/State/Zip: LAGAN TWP, NJ 08055		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS							
(xxx) xxx-xxxx Phone: 856-423-2200		TAT if different from Below							
(xxx) xxx-xxxx FAX:		<input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day							
Project Name: MILNER - ALEXANDRIA		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		Matrix	
Site: ALEXANDRIA, VA		12/9/21		10:45		G		Sed	
P O #		# of Cont.		6		X		X	
Sample Identification		BH-12 (7.5-8.0)							
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other		Possible Hazard Identification:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months					
Special Instructions/QC Requirements & Comments:		Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: 5.0		Corr'd: 5.3	
Therm ID No.: A0130000WS		Relinquished by: [Signature]		Company: ROLX ASSOCIATES		Date/Time: 12/9/21		Received by: [Signature]	
Company: ROLX ASSOCIATES		Date/Time: 12/9/21 17:30		Received by: [Signature]		Company: ELLE		Date/Time: 12/9/21 14:30	
Relinquished by: [Signature]		Company: ELLE		Date/Time: 12/9/21 17:40		Received in Laboratory by: [Signature]		Company: ELLE	

Eurofins Lancaster Laboratories Env, LLC

2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

Chain of Custody Record



eurofins Environment Testing America

Client Information (Sub Contract Lab)		Sampler:		Lab PM:		JOC No:									
Client Contact:		Phone:		E-Mail:		State of Origin:									
Shipping/Receiving		Company:		Accreditations Required (See note):		Page:									
TestAmerica Laboratories, Inc.		Address:		NELAP - Virginia		Page 1 of 1									
301 Alpha Drive, RIDC Park,		Due Date Requested:		Analysis Requested				Preservation Codes:							
City: Pittsburgh		1/10/2022													
State, Zip: PA, 15238		TAT Requested (days):		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Lloyd_Kahn_Mod							
Phone: 412-963-7058(Tel) 412-963-2468(Fax)															
Email:		PO #:		Total Number of Containers		Special Instructions/Note:		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)							
Project Name: Mueser - Alexandria		Project #:													
Site:		SSOW#:													
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Preservation Code:					
BH-12 (7.5-8.0) (410-66240-1)		12/9/21		10:45 Eastern		Solid						1			
<p>Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Env places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Env laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Env attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicity to Eurofins Lancaster Laboratories Env.</p>															
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
Unconfirmed						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months									
Deliverable Requested: I, II, III, IV, Other (specify)						Primary Deliverable Rank: 2									
Empty Kit Relinquished by:						Special Instructions/QC Requirements:									
Date:				Time:				Method of Shipment:							
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:					
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:					
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:					
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:											
Δ Yes Δ No															

Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-66240-1

Login Number: 66240

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Leakway, Christian

Question	Answer	Comment
The cooler's custody seal is 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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	

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Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-66240-1

Login Number: 66240
List Number: 2
Creator: Jodis, Matthew V

List Source: Eurofins Pittsburgh
List Creation: 12/14/21 04:00 PM

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.	True	
Sample custody seals, if present, are intact.	True	
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	



ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-66240-2
Client Project/Site: Mueser - Alexandria

For:
Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
1/10/2022 1:12:15 PM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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Kelly Tessier
Project Manager
1/10/2022 1:12:15 PM



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Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-2

Qualifiers

Geotechnical

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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
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

Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-2

Job ID: 410-66240-2

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

**Job Narrative
410-66240-2**

Receipt

The sample was received on 12/9/2021 5:40 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.3°C

Geotechnical

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

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Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-2

Client Sample ID: BH-12 (7.5-8.0)

Lab Sample ID: 410-66240-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sand	19.9		1.0	0.5	%	1		D422	Total/NA
Silt	73.7		1.0	0.5	%	1		D422	Total/NA
Clay	6.5		1.0	0.5	%	1		D422	Total/NA
75 mm	100.0		1.0	0.5	% Passing	1		D422	Total/NA
37.5 mm	100.0		1.0	0.5	% Passing	1		D422	Total/NA
19 mm	100.0		1.0	0.5	% Passing	1		D422	Total/NA
4.75 mm	100.0		1.0	0.5	% Passing	1		D422	Total/NA
3.35 mm	99.6		1.0	0.5	% Passing	1		D422	Total/NA
2.36 mm	98.5		1.0	0.5	% Passing	1		D422	Total/NA
1.18 mm	92.1		1.0	0.5	% Passing	1		D422	Total/NA
0.6 mm	88.7		1.0	0.5	% Passing	1		D422	Total/NA
0.3 mm	86.2		1.0	0.5	% Passing	1		D422	Total/NA
0.15 mm	84.0		1.0	0.5	% Passing	1		D422	Total/NA
0.064 mm	78.0		1.0	0.5	% Passing	1		D422	Total/NA
0.05 mm	71.0		1.0	0.5	% Passing	1		D422	Total/NA
0.02 mm	45.0		1.0	0.5	% Passing	1		D422	Total/NA
0.005 mm	12.0		1.0	0.5	% Passing	1		D422	Total/NA
0.002 mm	4.0		1.0	0.5	% Passing	1		D422	Total/NA
0.001 mm	2.0		1.0	0.5	% Passing	1		D422	Total/NA
0.075 mm	80.2		1.0	0.5	% Passing	1		D422	Total/NA

DRAFT

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria

Job ID: 410-66240-2

Client Sample ID: BH-12 (7.5-8.0)

Lab Sample ID: 410-66240-1

Date Collected: 12/09/21 10:45

Matrix: Solid

Date Received: 12/09/21 17:40

Method: D422 - Grain Size

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.5	U	1.0	0.5	%			12/17/21 12:25	1
Sand	19.9		1.0	0.5	%			12/17/21 12:25	1
Silt	73.7		1.0	0.5	%			12/17/21 12:25	1
Clay	6.5		1.0	0.5	%			12/17/21 12:25	1
75 mm	100.0		1.0	0.5	% Passing			12/17/21 12:25	1
37.5 mm	100.0		1.0	0.5	% Passing			12/17/21 12:25	1
19 mm	100.0		1.0	0.5	% Passing			12/17/21 12:25	1
4.75 mm	100.0		1.0	0.5	% Passing			12/17/21 12:25	1
3.35 mm	99.6		1.0	0.5	% Passing			12/17/21 12:25	1
2.36 mm	98.5		1.0	0.5	% Passing			12/17/21 12:25	1
1.18 mm	92.1		1.0	0.5	% Passing			12/17/21 12:25	1
0.6 mm	88.7		1.0	0.5	% Passing			12/17/21 12:25	1
0.3 mm	86.2		1.0	0.5	% Passing			12/17/21 12:25	1
0.15 mm	84.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.064 mm	78.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.05 mm	71.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.02 mm	45.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.005 mm	12.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.002 mm	4.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.001 mm	2.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.075 mm	80.2		1.0	0.5	% Passing			12/17/21 12:25	1

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0.75 Inch	555.45	555.45
#4	502.97	502.97
#6	483.44	482.40
#8	432.30	429.63
PAN	625.31	385.38

Sieve Size (Mr)	Tare+Sample Wt.(g)	Tare Weight (g) ^{01/10/22}
#16	455.11	455 452
#30	295.37	293.67
#50	266.79	265.59
#100	319.40	318.29
#200	218.48	216.11
PAN	385.80	385.32

Grain Size Classification	
% Gravel	0
% Sand	19.85
% Silt	73.65
% Clay	6.5
% Clay + Silt	

Balance ID#: 18959 Oven ID# 18961
 Oven Date/Time/Temp In: 1-7-22 1100 105° Oven Date/Time/Temp Out: 1-10-22 1030

Moisture

Tare Weight (g)	Sample Weight (g)	Oven Dry Wt. (g)
0.7873	5.6638	6.3429

Init./Emp. #: 448 1198

Bulk Density

Tare Weight (g)	Sample Weight (g)	DI H ₂ O+Sple Wt. (g)
72.0788	9.6165	104.5052

Init./Emp. #: 448 1198

Hydrometer Readings Sample Wt. 49.24 Hydrometer ID #: 237666 Init./Emp #: 448

Time	Temp	Reading
2 minutes	22	1.019
5 minutes	22	1.016
15 minutes	22	1.014
30 minutes	22	1.012
60 minutes	22	1.010
250 minutes	22	1.006
1440 minutes	22	1.005

Comments: _____

Oven ID#: 168
 Oven Date/Time/Temp In: 1/8/22
 Oven Date/Time/Temp Out: 1/10/22

Particle Size Distribution

Sample: 410-66240-1 **Date:** 12/17/21 **Init/Emp #** VS41049

Percent Passing	Particle Size
100.00	75
100.00	37.5
100.00	19
100.00	4.75
99.57	3.35
98.48	2.36
92.14	1.18
88.67	0.6
86.22	0.3
83.96	0.15
80.15	0.075
64.76	0.04026
51.70	0.02635
43.00	0.01552
34.29	0.01119
25.59	0.00809
8.18	0.00411
3.83	0.00173

- * Used for line 1
- ** Used for line 2
- *** Used for lines 1 and 2
- + Calculated from line 1
- ++ Calculated from line 2

Log (particle size)
-1.124939
-1.395086
-1.579203
-1.808971
-1.951036
-2.091826
-2.386422
-2.762246

Line 1 Regr
Constant
Std Err of Y Est
R Squared
No. of Observatio
Degrees of Freedc
X Coefficient(s)
Std Err of Coef.

Line 2 Regr
Constant
Std Err of Y Est
R Squared
No. of Observatio
Degrees of Freedc
X Coefficient(s)
Std Err of Coef.

Particle Size Ca.
0.064
0.05
0.02
0.005
0.002
0.001

1-AB/95A 1,



Particle Size Distribution

Sample: 410-66240-1	Date: 12/17/21
	Init/Emp # VS41049

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	538.70	538.70	0.00	100
1.5 inch	559.21	559.21	0.00	100
0.75 inch	555.45	555.45	0.00	100
# 4	502.97	502.97	0.00	100
# 6	483.44	482.40	1.04	99.5731407
# 8	432.30	429.63	2.67	98.4772615
PAN	625.31	385.38	239.93	

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	455.11	452.00	3.11	92.1362981
# 30	295.37	293.67	1.70	88.6701766
# 50	266.79	265.59	1.20	86.2235026
# 100	319.40	318.29	1.11	83.9603292
# 200	218.48	216.61	1.87	80.1475956
PAN	385.80	385.32	0.48	

Moisture			
Tare Weight	Sample Weight	Oven Dry Weight	Ratio
0.7873	5.6638	6.3429	0.9809

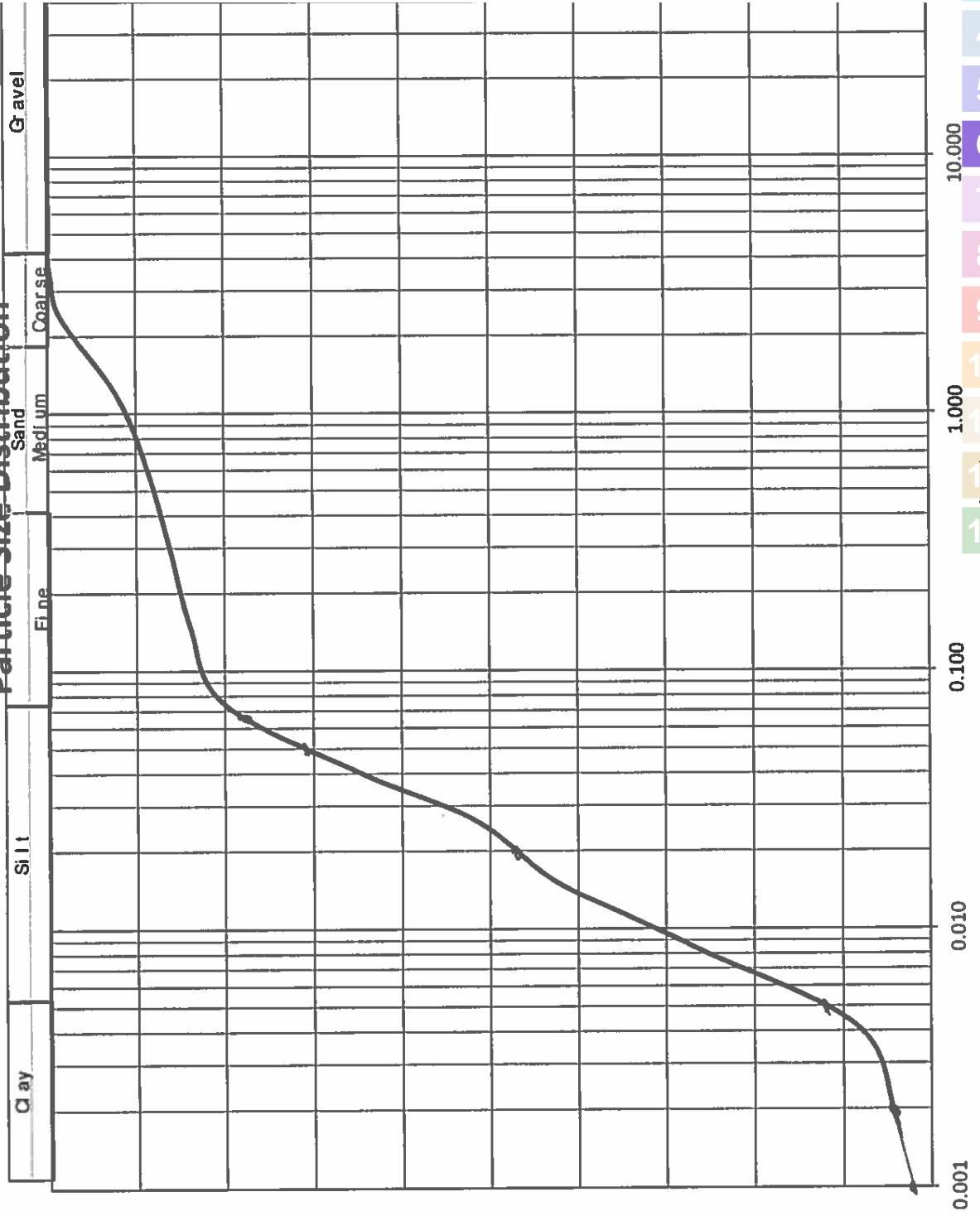
Bulk Density			
Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol Soil
72.0788	9.6164	104.5052	5.1111
		94.8889	

Hydrometer Readings		49.24	Hydrometer #:	237666
Time	Sample Weight	Reading	Corr. Rdnng.	Part. Size
2 minutes	22.0	1.0190	1.015	0.0403
5 minutes	22.0	1.0160	1.012	0.0264
15 minutes	22.0	1.0140	1.010	0.0155
30 minutes	22.0	1.0120	1.008	0.0112
60 minutes	22.0	1.0100	1.006	0.0081
250 minutes	22.0	1.0060	1.002	0.0041
1440 minutes	22.0	1.0050	1.001	0.0017



410-66240-1

Particle Size Distribution



- 1
 - 2
 - 3
 - 4
 - 5
 - 6
 - 7
 - 8
 - 9
 - 10
 - 11
 - 12
 - 13
- Particle Size (mm)

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-2

Geotechnical

Analysis Batch: 213156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66240-1	BH-12 (7.5-8.0)	Total/NA	Solid	D422	

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Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-2

Client Sample ID: BH-12 (7.5-8.0)

Lab Sample ID: 410-66240-1

Date Collected: 12/09/21 10:45

Matrix: Solid

Date Received: 12/09/21 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D422		1	213156	12/17/21 12:25	DZU8	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-2

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22

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
D422		Solid	0.001 mm
D422		Solid	0.002 mm
D422		Solid	0.005 mm
D422		Solid	0.02 mm
D422		Solid	0.05 mm
D422		Solid	0.064 mm
D422		Solid	0.075 mm
D422		Solid	0.15 mm
D422		Solid	0.3 mm
D422		Solid	0.6 mm
D422		Solid	1.18 mm
D422		Solid	19 mm
D422		Solid	2.36 mm
D422		Solid	3.35 mm
D422		Solid	37.5 mm
D422		Solid	4.75 mm
D422		Solid	75 mm
D422		Solid	Clay
D422		Solid	Gravel
D422		Solid	Sand
D422		Solid	Silt

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Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-2

Method	Method Description	Protocol	Laboratory
D422	Grain Size	ASTM	ELLE

Protocol References:

ASTM = ASTM International

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66240-2

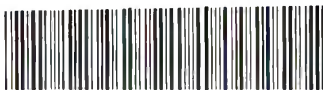
Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-66240-1	BH-12 (7.5-8.0)	Solid	12/09/21 10:45	12/09/21 17:40

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>> Selec

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410-66240 Chain of Custody

Chain of Custody Record



Regulatory Program: DW NPDES RCRA Other: VA-DEP

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact				Project Manager: Ashley Sweeney		Site Contact: Polly N		Date: 12/9/2021		COC No: 1 of 1 COCs	
Your Company Name here: ROLX ASSOCIATES				Email: asweeney@rolx.com		Lab Contact:		Carrier:		TALS Project #:	
Address: 407 HEMO DRIVE				Tel/Fax:		Filtered Sample (Y/N) Perform MS / MSD (Y / N) D122 - CRANI SITE X2100 - TELXYS SMOI 2 M0500K - % METALS X7700 - TEL 1.2 SVOC X081B - TEL OF RESIDUAL X082A - Groundwater PCB list W000 - TEL METALS (mg) 7471B - MERCURY U000-K000 - TEL		Sampler: For Lab Use Only: Walk-in Client: Lab Sampling:		Job / SDG No.:	
City/State/Zip: LAGAN TWP, NJ 08055				Analysis Turnaround Time							
Phone: 856-423-2200				<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS							
FAX:				TAT if different from Below							
Project Name: MILKY-ALEXANDRIA				<input checked="" type="checkbox"/> 2 weeks							
Site: ALEXANDRIA, VA				<input type="checkbox"/> 1 week						Sample Specific Notes:	
PO #:				<input type="checkbox"/> 2 days							
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.					
BH-12 (7.5-8.0)		12/9/21	10:45	G	Soil	6	X	X	X	X	X
Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other											
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown						<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months					
Special Instructions/QC Requirements & Comments:											
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No				Custody Seal No.:		Cooler Temp. (°C): Obs'd: 5.0		Corr'd: 5.3		Therm ID No.: A0130000WS	
Relinquished by: <i>Kim Z</i>		Company: ROLX ASSOCIATES		Date/Time: 12/9/21		Received by: <i>John</i>		Company: ET ADALT		Date/Time: 12/9/21 12:45	
Relinquished by: <i>John</i>		Company: ET ADALT		Date/Time: 12/9/21 14:30		Received by: <i>John</i>		Company: ELLE		Date/Time: 12/9/21 14:30	
Relinquished by: <i>John</i>		Company: ELLE		Date/Time: 12/9/21 17:40		Received in Laboratory by: <i>John</i>		Company: ELLET		Date/Time: 12/9/21 17:40	



Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-66240-2

Login Number: 66240

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Leakway, Christian

Question	Answer	Comment
The cooler's custody seal is 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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-66823-1
Client Project/Site: Mueser - Alexandria

For:

Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
1/7/2022 1:38:19 PM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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A handwritten signature in cursive script that reads "Kelly Tessier".

Kelly Tessier
Project Manager
1/7/2022 1:38:19 PM

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Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
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.
U	Indicates the analyte was analyzed for but not detected.

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.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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)

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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
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

DRAFT

Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Job ID: 410-66823-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-66823-1

Receipt

The sample was received on 12/14/2021 6:03 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.4°C

GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-207064 recovered above the upper control limit for Chloromethane and Vinyl chloride. Non-detections of the affected analytes are reported. Any detections are considered estimated.

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

GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) associated with batch 410-212515 recovered above the upper control limit for 2-Nitroaniline. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: Surrogate recovery for the following sample was outside acceptance limits: BH-20 (9.5-10.0) (410-66823-1). The results have been reported per client request.

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

PCBs

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

Pesticides

Method 8081B: The laboratory control sample (LCS) for preparation batch 410-209776 and analytical batch 410-209924 recovered outside control limits for the following analytes: p,p'-DDE, delta-BHC and gamma-BHC (Lindane). The associated sample(s) was re-prepared and/or re-analyzed outside holding time. Original data have been report.

Method 8081B: The continuing calibration verification (CCV) associated with batch 410-209924 recovered above the upper control limit for Methoxychlor. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: BH-20 (9.5-10.0) (410-66823-1).

Method 8081B: The continuing calibration verification (CCV) associated with batch 410-209924 recovered outside acceptance criteria, high biased, for p,p'-DDT. Due to the matrix of the sample which therefore, the data have been reported.

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

Metals

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

General Chemistry

Method Lloyd_Kahn_Mod: Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis. BH-20 (9.5-10.0) (410-66823-1), (180-131375-A-1), (180-131375-A-1 MS) and (180-131375-B-1 MSD)

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

Geotechnical

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

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Client Sample ID: BH-20 (9.5-10.0)

Lab Sample ID: 410-66823-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Toluene	130	J cn	580	70	ug/Kg	50	*		8260C	Total/NA
cis-1,2-Dichloroethene	6300	cn	580	58	ug/Kg	50	*		8260C	Total/NA
trans-1,2-Dichloroethene	88	J cn	580	58	ug/Kg	50	*		8260C	Total/NA
Vinyl chloride	970	cn	580	70	ug/Kg	50	*		8260C	Total/NA
Methyl acetate	120	J cn	580	120	ug/Kg	50	*		8260C	Total/NA
1,1'-Biphenyl	34	J cn	57	26	ug/Kg	1	*		8270D	Total/NA
2-Methylnaphthalene	170	cn	26	7.7	ug/Kg	1	*		8270D	Total/NA
4-Methylphenol	920	cn	77	26	ug/Kg	1	*		8270D	Total/NA
Acenaphthene	160	cn	26	5.1	ug/Kg	1	*		8270D	Total/NA
Acenaphthylene	15	J cn	26	6.2	ug/Kg	1	*		8270D	Total/NA
Anthracene	69	cn	26	5.1	ug/Kg	1	*		8270D	Total/NA
Benzaldehyde	100	J cn	260	51	ug/Kg	1	*		8270D	Total/NA
Benzo[a]anthracene	88	cn	26	5.1	ug/Kg	1	*		8270D	Total/NA
Benzo[a]pyrene	81	cn	26	5.1	ug/Kg	1	*		8270D	Total/NA
Benzo[b]fluoranthene	88	cn	26	5.1	ug/Kg	1	*		8270D	Total/NA
Benzo[g,h,i]perylene	110	cn	26	5.1	ug/Kg	1	*		8270D	Total/NA
Benzo[k]fluoranthene	38	cn	26	5.1	ug/Kg	1	*		8270D	Total/NA
Carbazole	28	J cn	57	26	ug/Kg	1	*		8270D	Total/NA
Chrysene	83	cn	26	5.1	ug/Kg	1	*		8270D	Total/NA
Dibenz(a,h)anthracene	30	cn	26	10	ug/Kg	1	*		8270D	Total/NA
Dibenzofuran	83	cn	57	26	ug/Kg	1	*		8270D	Total/NA
Fluoranthene	260	cn	26	5.1	ug/Kg	1	*		8270D	Total/NA
Fluorene	130	cn	26	5.1	ug/Kg	1	*		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	58	cn	26	6.2	ug/Kg	1	*		8270D	Total/NA
Naphthalene	410	cn	26	10	ug/Kg	1	*		8270D	Total/NA
Phenanthrene	340	cn	26	6.2	ug/Kg	1	*		8270D	Total/NA
Pyrene	220	cn	26	5.1	ug/Kg	1	*		8270D	Total/NA
p,p'-DDT (1C)	8.3	J cn	13	6.1	ug/Kg	5	*		8081B	Total/NA
PCB-1260 (1C)	29		26	10	ug/Kg	1	*		8082A	Total/NA
Antimony	2.8	J	7.7	2.6	mg/Kg	1	*		6010D	Total/NA
Aluminium	30000		31	16	mg/Kg	1	*		6010D	Total/NA
Barium	220		0.77	0.23	mg/Kg	1	*		6010D	Total/NA
Beryllium	1.4		0.77	0.15	mg/Kg	1	*		6010D	Total/NA
Cadmium	1.2		0.77	0.15	mg/Kg	1	*		6010D	Total/NA
Calcium	3400		77	18	mg/Kg	1	*		6010D	Total/NA
Chromium	40		2.3	0.28	mg/Kg	1	*		6010D	Total/NA
Cobalt	22		0.77	0.22	mg/Kg	1	*		6010D	Total/NA
Copper	35		3.1	1.2	mg/Kg	1	*		6010D	Total/NA
Iron	38000		31	9.5	mg/Kg	1	*		6010D	Total/NA
Lead	26	^2	2.3	0.92	mg/Kg	1	*		6010D	Total/NA
Magnesium	5200		15	6.1	mg/Kg	1	*		6010D	Total/NA
Manganese	1000		1.5	0.80	mg/Kg	1	*		6010D	Total/NA
Nickel	33		1.5	0.40	mg/Kg	1	*		6010D	Total/NA
Potassium	3100	^2	77	31	mg/Kg	1	*		6010D	Total/NA
Sodium	77	J	150	71	mg/Kg	1	*		6010D	Total/NA
Zinc	100		3.1	1.5	mg/Kg	1	*		6010D	Total/NA
Vanadium	72		1.5	0.66	mg/Kg	1	*		6010D	Total/NA
Mercury	0.35		0.091	0.038	mg/Kg	1	*		7471B	Total/NA
Total Organic Carbon - Duplicates	17000	cn	1600	1500	mg/Kg	1	*		EPA-Lloyd Kahn	Total/NA
Gravel	2.1		1.0	0.5	%	1			D422	Total/NA
Sand	6.9		1.0	0.5	%	1			D422	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Client Sample ID: BH-20 (9.5-10.0) (Continued)

Lab Sample ID: 410-66823-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Silt	58.0		1.0	0.5	%	1		D422	Total/NA
Clay	33.0		1.0	0.5	%	1		D422	Total/NA
75 mm	100.0		1.0	0.5	% Passing	1		D422	Total/NA
37.5 mm	100.0		1.0	0.5	% Passing	1		D422	Total/NA
19 mm	100.0		1.0	0.5	% Passing	1		D422	Total/NA
4.75 mm	97.9		1.0	0.5	% Passing	1		D422	Total/NA
3.35 mm	96.8		1.0	0.5	% Passing	1		D422	Total/NA
2.36 mm	94.3		1.0	0.5	% Passing	1		D422	Total/NA
1.18 mm	93.3		1.0	0.5	% Passing	1		D422	Total/NA
0.6 mm	92.6		1.0	0.5	% Passing	1		D422	Total/NA
0.3 mm	92.2		1.0	0.5	% Passing	1		D422	Total/NA
0.15 mm	91.6		1.0	0.5	% Passing	1		D422	Total/NA
0.064 mm	89.0		1.0	0.5	% Passing	1		D422	Total/NA
0.05 mm	84.5		1.0	0.5	% Passing	1		D422	Total/NA
0.02 mm	68.0		1.0	0.5	% Passing	1		D422	Total/NA
0.005 mm	33.0		1.0	0.5	% Passing	1		D422	Total/NA
0.002 mm	17.5		1.0	0.5	% Passing	1		D422	Total/NA
0.001 mm	8.0		1.0	0.5	% Passing	1		D422	Total/NA
0.075 mm	91.0		1.0	0.5	% Passing	1		D422	Total/NA

DRAFT

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Client Sample ID: BH-20 (9.5-10.0)

Lab Sample ID: 410-66823-1

Date Collected: 12/14/21 09:25

Matrix: Solid

Date Received: 12/14/21 18:03

Percent Solids: 64.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	47	U cn	580	47	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
trans-1,3-Dichloropropene	58	U cn	580	58	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Ethylbenzene	47	U cn	580	47	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Styrene	47	U cn	580	47	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
1,4-Dichlorobenzene	47	U cn	580	47	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
1,2-Dibromoethane	47	U cn	580	47	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
1,2-Dichloroethane	70	U cn	580	70	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
4-Methyl-2-pentanone	120	U cn	1200	120	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Methylcyclohexane	70	U cn	580	70	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Toluene	130	J cn	580	70	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Chlorobenzene	58	U cn	580	58	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Cyclohexane	58	U cn	580	58	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
1,2,4-Trichlorobenzene	580	U cn	1200	580	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
1,4-Dioxane	4300	U cn	29000	4300	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Dibromochloromethane	230	U cn	580	230	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Tetrachloroethene	58	U cn	580	58	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
cis-1,2-Dichloroethene	6300	cn	580	58	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
trans-1,2-Dichloroethene	88	J cn	580	58	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Methyl tertiary butyl ether	58	U cn	580	58	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
m&p-Xylene	120	U cn	580	120	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
1,3-Dichlorobenzene	58	U cn	580	58	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Carbon tetrachloride	230	U cn	580	230	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
2-Hexanone	120	U cn	1200	120	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Acetone	700	U cn	2300	700	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Chloroform	70	U cn	580	70	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Benzene	58	U cn	580	58	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
1,1,1-Trichloroethane	70	U cn	580	70	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Bromomethane	82	U cn	580	82	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Chloromethane	70	U cn	580	70	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Bromochloromethane	70	U cn	580	70	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Chloroethane	120	U cn	580	120	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Vinyl chloride	970	cn	580	70	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Methylene Chloride	230	U cn	580	230	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Carbon disulfide	70	U cn	580	70	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Bromoform	580	U cn	1200	580	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Bromodichloromethane	47	U cn	580	47	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
1,1-Dichloroethane	58	U cn	580	58	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
1,1-Dichloroethene	58	U cn	580	58	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Trichlorofluoromethane	82	U cn	580	82	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Dichlorodifluoromethane	70	U cn	580	70	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Freon 113	70	U cn	1200	70	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
1,2-Dichloropropane	58	U cn	580	58	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
2-Butanone	230	U cn	1200	230	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
1,1,2-Trichloroethane	58	U cn	580	58	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Trichloroethene	58	U cn	580	58	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
Methyl acetate	120	J cn	580	120	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
1,1,2,2-Tetrachloroethane	47	U cn	580	47	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
1,2,3-Trichlorobenzene	580	U cn	1200	580	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50
o-Xylene	47	U cn	580	47	ug/Kg	✱	12/15/21 18:58	12/18/21 21:11	50

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Client Sample ID: BH-20 (9.5-10.0)

Lab Sample ID: 410-66823-1

Date Collected: 12/14/21 09:25

Matrix: Solid

Date Received: 12/14/21 18:03

Percent Solids: 64.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	58	U cn	580	58	ug/Kg	☼	12/15/21 18:58	12/18/21 21:11	50
1,2-Dibromo-3-Chloropropane	120	U cn	580	120	ug/Kg	☼	12/15/21 18:58	12/18/21 21:11	50
Isopropylbenzene	47	U cn	580	47	ug/Kg	☼	12/15/21 18:58	12/18/21 21:11	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105	cn	54 - 135				12/15/21 18:58	12/18/21 21:11	50
4-Bromofluorobenzene (Surr)	102	cn	50 - 131				12/15/21 18:58	12/18/21 21:11	50
Dibromofluoromethane (Surr)	103	cn	50 - 141				12/15/21 18:58	12/18/21 21:11	50
Toluene-d8 (Surr)	98	cn	52 - 141				12/15/21 18:58	12/18/21 21:11	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	34	J cn	57	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
1,2,4,5-Tetrachlorobenzene	26	U cn	57	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
2,2'-oxybis[1-chloropropane]	31	U cn	67	31	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
2,3,4,6-Tetrachlorophenol	100	U cn	260	100	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
2,4,5-Trichlorophenol	26	U cn	57	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
2,4,6-Trichlorophenol	26	U cn	57	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
2,4-Dichlorophenol	31	U cn	67	31	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
2,4-Dimethylphenol	26	U cn	57	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
2,4-Dinitrophenol	260	U cn	1500	260	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
2,4-Dinitrotoluene	51	U cn	260	51	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
2,6-Dinitrotoluene	26	U cn	57	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
2-Chloronaphthalene	21	U cn	51	21	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
2-Chlorophenol	26	U cn	57	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
2-Methylnaphthalene	170	cn	26	7.7	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
2-Methylphenol	31	U cn	77	31	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
2-Nitroaniline	26	U cn	77	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
2-Nitrophenol	31	U cn	77	31	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
3,3'-Dichlorobenzidine	51	U cn	260	51	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
3-Nitroaniline	51	U cn	260	51	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
4,6-Dinitro-2-methylphenol	260	U cn	770	260	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
4-Bromophenyl-phenylether	26	U cn	57	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
4-Chloro-3-methylphenol	31	U cn	77	31	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
4-Methylphenol	920	cn	77	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
4-Nitroaniline	51	U cn	260	51	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
4-Nitrophenol	260	U cn	770	260	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Acenaphthene	160	cn	26	5.1	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Acenaphthylene	15	J cn	26	6.2	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Acetophenone	26	U cn	77	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Anthracene	69	cn	26	5.1	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Atrazine	100	U cn	260	100	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Benzaldehyde	100	J cn	260	51	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Benzo[a]anthracene	88	cn	26	5.1	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Benzo[a]pyrene	81	cn	26	5.1	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Benzo[b]fluoranthene	88	cn	26	5.1	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Benzo[g,h,i]perylene	110	cn	26	5.1	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Benzo[k]fluoranthene	38	cn	26	5.1	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Bis(2-chloroethoxy)methane	26	U cn	57	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Bis(2-chloroethyl)ether	26	U cn	57	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Client Sample ID: BH-20 (9.5-10.0)

Lab Sample ID: 410-66823-1

Date Collected: 12/14/21 09:25

Matrix: Solid

Date Received: 12/14/21 18:03

Percent Solids: 64.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	100	U cn	260	100	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Butylbenzylphthalate	100	U cn	260	100	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Caprolactam	51	U cn	260	51	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Carbazole	28	J cn	57	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Chrysene	83	cn	26	5.1	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Di-n-butyl phthalate	100	U cn	260	100	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Di-n-octyl phthalate	100	U cn	260	100	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Dibenz(a,h)anthracene	30	cn	26	10	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Dibenzofuran	83	cn	57	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Diethyl phthalate	100	U cn	260	100	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Dimethyl phthalate	100	U cn	260	100	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Fluoranthene	260	cn	26	5.1	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Fluorene	130	cn	26	5.1	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Hexachlorobenzene	10	U cn	26	10	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Hexachlorobutadiene	31	U cn	77	31	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Hexachlorocyclopentadiene	260	U cn	770	260	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Hexachloroethane	51	U cn	260	51	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Indeno[1,2,3-cd]pyrene	58	cn	26	6.2	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Isophorone	26	U cn	100	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
N-Nitrosodi-n-propylamine	51	U cn	100	51	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
N-Nitrosodiphenylamine	26	U cn	57	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Naphthalene	410	cn	26	10	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Nitrobenzene	26	U cn	57	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Phenanthrene	340	cn	26	6.2	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Phenol	26	U cn	57	26	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Pyrene	220	cn	26	5.1	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1
Pentachlorophenol	100	U cn	260	100	ug/Kg	☼	12/28/21 15:58	01/07/22 02:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	35	S1- cn	45 - 108	12/28/21 15:58	01/07/22 02:31	1
Nitrobenzene-d5 (Surr)	11	S1- cn	32 - 97	12/28/21 15:58	01/07/22 02:31	1
2-Fluorophenol (Surr)	33	cn	26 - 96	12/28/21 15:58	01/07/22 02:31	1
2-Fluorobiphenyl (Surr)	39	cn	39 - 100	12/28/21 15:58	01/07/22 02:31	1
2,4,6-Tribromophenol (Surr)	24	cn	13 - 121	12/28/21 15:58	01/07/22 02:31	1
Phenol-d5 (Surr)	32	cn	27 - 104	12/28/21 15:58	01/07/22 02:31	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	1.3	U cn	6.5	1.3	ug/Kg	☼	12/28/21 16:27	12/29/21 09:39	5
alpha-BHC (1C)	1.3	U cn	6.5	1.3	ug/Kg	☼	12/28/21 16:27	12/29/21 09:39	5
alpha-Chlordane (1C)	1.3	U cn	6.5	1.3	ug/Kg	☼	12/28/21 16:27	12/29/21 09:39	5
beta-BHC (1C)	3.4	U cn	7.8	3.4	ug/Kg	☼	12/28/21 16:27	12/29/21 09:39	5
delta-BHC (2C)	3.5	U *- cn	7.8	3.5	ug/Kg	☼	12/28/21 16:27	12/29/21 09:39	5
Dieldrin (1C)	2.6	U cn	13	2.6	ug/Kg	☼	12/28/21 16:27	12/29/21 09:39	5
Endosulfan I (1C)	1.7	U cn	6.5	1.7	ug/Kg	☼	12/28/21 16:27	12/29/21 09:39	5
Endosulfan II (1C)	8.6	U cn	18	8.6	ug/Kg	☼	12/28/21 16:27	12/29/21 09:39	5
Endosulfan sulfate (1C)	2.6	U cn	13	2.6	ug/Kg	☼	12/28/21 16:27	12/29/21 09:39	5
Endrin (1C)	5.3	U cn	13	5.3	ug/Kg	☼	12/28/21 16:27	12/29/21 09:39	5
Endrin aldehyde (1C)	2.6	U cn	13	2.6	ug/Kg	☼	12/28/21 16:27	12/29/21 09:39	5
Endrin ketone (1C)	4.7	U cn	16	4.7	ug/Kg	☼	12/28/21 16:27	12/29/21 09:39	5

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Client Sample ID: BH-20 (9.5-10.0)

Lab Sample ID: 410-66823-1

Date Collected: 12/14/21 09:25

Matrix: Solid

Date Received: 12/14/21 18:03

Percent Solids: 64.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane) (2C)	6.5	U p cn	6.5	6.5	ug/Kg	✱	12/28/21 16:27	12/29/21 09:39	5
gamma-Chlordane (1C)	1.9	U cn	6.5	1.9	ug/Kg	✱	12/28/21 16:27	12/29/21 09:39	5
Heptachlor (1C)	2.4	U cn	6.5	2.4	ug/Kg	✱	12/28/21 16:27	12/29/21 09:39	5
Heptachlor epoxide (1C)	1.3	U cn	6.5	1.3	ug/Kg	✱	12/28/21 16:27	12/29/21 09:39	5
Methoxychlor (1C)	14	U cn	52	14	ug/Kg	✱	12/28/21 16:27	12/29/21 09:39	5
Toxaphene (1C)	110	U cn	260	110	ug/Kg	✱	12/28/21 16:27	12/29/21 09:39	5
p,p'-DDD (1C)	2.6	U cn	13	2.6	ug/Kg	✱	12/28/21 16:27	12/29/21 09:39	5
p,p'-DDE (2C)	2.6	U *+ cn	13	2.6	ug/Kg	✱	12/28/21 16:27	12/29/21 09:39	5
p,p'-DDT (1C)	8.3	J cn	13	6.1	ug/Kg	✱	12/28/21 16:27	12/29/21 09:39	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	68	cn	54 - 143	12/28/21 16:27	12/29/21 09:39	5
DCB Decachlorobiphenyl (Surr) (2C)	74	cn	54 - 143	12/28/21 16:27	12/29/21 09:39	5
Tetrachloro-m-xylene (Surr) (1C)	79	cn	20 - 131	12/28/21 16:27	12/29/21 09:39	5
Tetrachloro-m-xylene (Surr) (2C)	118	cn	20 - 131	12/28/21 16:27	12/29/21 09:39	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	8.3	U	26	8.3	ug/Kg	✱	12/28/21 16:30	12/29/21 08:55	1
PCB-1221 (1C)	8.3	U	26	8.3	ug/Kg	✱	12/28/21 16:30	12/29/21 08:55	1
PCB-1232 (1C)	8.3	U	26	8.3	ug/Kg	✱	12/28/21 16:30	12/29/21 08:55	1
PCB-1242 (1C)	8.3	U	26	8.3	ug/Kg	✱	12/28/21 16:30	12/29/21 08:55	1
PCB-1248 (1C)	8.3	U	26	8.3	ug/Kg	✱	12/28/21 16:30	12/29/21 08:55	1
PCB-1254 (1C)	10	U	26	10	ug/Kg	✱	12/28/21 16:30	12/29/21 08:55	1
PCB-1260 (1C)	29		26	10	ug/Kg	✱	12/28/21 16:30	12/29/21 08:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	64		45 - 143	12/28/21 16:30	12/29/21 08:55	1
DCB Decachlorobiphenyl (Surr) (2C)	76		45 - 143	12/28/21 16:30	12/29/21 08:55	1
Tetrachloro-m-xylene (1C)	62		53 - 140	12/28/21 16:30	12/29/21 08:55	1
Tetrachloro-m-xylene (2C)	69		53 - 140	12/28/21 16:30	12/29/21 08:55	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.8	J	7.7	2.6	mg/Kg	✱	12/15/21 17:50	12/20/21 12:50	1
Aluminum	30000		31	16	mg/Kg	✱	12/15/21 17:50	12/20/21 12:50	1
Arsenic	11	U	23	11	mg/Kg	✱	12/15/21 17:50	12/20/21 22:20	5
Barium	220		0.77	0.23	mg/Kg	✱	12/15/21 17:50	12/20/21 12:50	1
Beryllium	1.4		0.77	0.15	mg/Kg	✱	12/15/21 17:50	12/20/21 12:50	1
Cadmium	1.2		0.77	0.15	mg/Kg	✱	12/15/21 17:50	12/20/21 12:50	1
Calcium	3400		77	18	mg/Kg	✱	12/15/21 17:50	12/20/21 12:50	1
Chromium	40		2.3	0.28	mg/Kg	✱	12/15/21 17:50	12/20/21 12:50	1
Cobalt	22		0.77	0.22	mg/Kg	✱	12/15/21 17:50	12/20/21 12:50	1
Copper	35		3.1	1.2	mg/Kg	✱	12/15/21 17:50	12/20/21 12:50	1
Iron	38000		31	9.5	mg/Kg	✱	12/15/21 17:50	12/20/21 12:50	1
Lead	26	^2	2.3	0.92	mg/Kg	✱	12/15/21 17:50	12/20/21 12:50	1
Magnesium	5200		15	6.1	mg/Kg	✱	12/15/21 17:50	12/20/21 12:50	1
Manganese	1000		1.5	0.80	mg/Kg	✱	12/15/21 17:50	12/20/21 12:50	1
Nickel	33		1.5	0.40	mg/Kg	✱	12/15/21 17:50	12/20/21 12:50	1
Potassium	3100	^2	77	31	mg/Kg	✱	12/15/21 17:50	12/20/21 12:50	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Client Sample ID: BH-20 (9.5-10.0)

Lab Sample ID: 410-66823-1

Date Collected: 12/14/21 09:25

Matrix: Solid

Date Received: 12/14/21 18:03

Percent Solids: 64.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	2.3	U	7.7	2.3	mg/Kg	☼	12/15/21 17:50	12/20/21 12:50	1
Silver	0.61	U ^5-	1.5	0.61	mg/Kg	☼	12/15/21 17:50	12/20/21 12:50	1
Sodium	77	J	150	71	mg/Kg	☼	12/15/21 17:50	12/20/21 12:50	1
Thallium	2.0	U ^3+	4.6	2.0	mg/Kg	☼	12/15/21 17:50	12/20/21 12:50	1
Zinc	100		3.1	1.5	mg/Kg	☼	12/15/21 17:50	12/20/21 12:50	1
Vanadium	72		1.5	0.66	mg/Kg	☼	12/15/21 17:50	12/20/21 12:50	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.35		0.091	0.038	mg/Kg	☼	12/15/21 22:16	12/16/21 19:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	36.0		1.0	1.0	%			12/15/21 08:04	1

General Chemistry

Lab: Eurofins Pittsburgh

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	17000	cn	1600	1500	mg/Kg	☼		12/22/21 22:14	1

Method: D422 - Grain Size

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	2.1		1.0	0.5	%			12/17/21 12:25	1
Sand	6.9		1.0	0.5	%			12/17/21 12:25	1
Silt	58.0		1.0	0.5	%			12/17/21 12:25	1
Clay	33.0		1.0	0.5	%			12/17/21 12:25	1
75 mm	100.0		1.0	0.5	% Passing			12/17/21 12:25	1
37.5 mm	100.0		1.0	0.5	% Passing			12/17/21 12:25	1
19 mm	100.0		1.0	0.5	% Passing			12/17/21 12:25	1
4.75 mm	97.9		1.0	0.5	% Passing			12/17/21 12:25	1
3.35 mm	96.8		1.0	0.5	% Passing			12/17/21 12:25	1
2.36 mm	94.3		1.0	0.5	% Passing			12/17/21 12:25	1
1.18 mm	93.3		1.0	0.5	% Passing			12/17/21 12:25	1
0.6 mm	92.6		1.0	0.5	% Passing			12/17/21 12:25	1
0.3 mm	92.2		1.0	0.5	% Passing			12/17/21 12:25	1
0.15 mm	91.6		1.0	0.5	% Passing			12/17/21 12:25	1
0.064 mm	89.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.05 mm	84.5		1.0	0.5	% Passing			12/17/21 12:25	1
0.02 mm	68.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.005 mm	33.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.002 mm	17.5		1.0	0.5	% Passing			12/17/21 12:25	1
0.001 mm	8.0		1.0	0.5	% Passing			12/17/21 12:25	1
0.075 mm	91.0		1.0	0.5	% Passing			12/17/21 12:25	1

0.75 Inch	555.59	555.59
#4	506.24	502.98
#6	484.00	482.37
#8	433.41	429.61
PAN	529.54	385.36

Sieve Size (Mr)	Tare+Sample Wt.(g)	Tare Weight (g)
#16	452.52	452.00
#30	294.01	293.64
#50	265.82	265.62
#100	318.55	318.25
#200	216.89	216.57
PAN	385.3536	385.36

Grain Size Classification	
% Gravel	2.13
% Sand	6.86
% Silt	58.01
% Clay	33
% Clay + Silt	—

③ VS41049 01/06/22

Balance ID#: 18959 Oven ID# 18961
 Oven Date/Time/Temp In: 1-4-22 1100 105° Oven Date/Time/Temp Out: 1-5-22 1200 105°

Moisture

Tare Weight (g)	Sample Weight (g)	Oven Dry Wt. (g)
0.7893	5.1714	103.9059

Init./Emp. #: YYB 1193

*3748 1163 1-4-22

Bulk Density

Tare Weight (g)	Sample Weight (g)	DI H ₂ O+Sple Wt. (g)
68.7435	6.9253	103.3762

Init./Emp. #: YYB 1193

Hydrometer Readings Sample Wt. 49.38 Hydrometer ID #: 237666 Init./Emp #: YYB 1193

Time	Temp	Reading
2 minutes	22	1.024
5 minutes	22	1.022
15 minutes	22	1.020
30 minutes	22	1.018
60 minutes	22	1.015
250 minutes	22	1.011
1440 minutes	22	1.008

Comments: _____

Oven ID#: 16859
 Oven Date/Time/Temp In: 1-5-22
 Oven Date/Time/Temp Out: 1-6-22

Particle Size Distribution

Sample: 410-66823-D-1	Date: 12/17/21
	Init/Emp #: VS41049

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	538.66	538.66	0.00	100
1.5 inch	559.23	559.23	0.00	100
0.75 inch	555.59	555.59	0.00	100
# 4	506.24	502.98	3.26	97.8674691
# 6	484.00	482.37	1.63	96.8012036
# 8	433.41	429.61	3.80	94.3154314
PAN	529.54	385.36	144.18	

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	452.52	452.00	0.52	93.3115979
# 30	294.01	293.64	0.37	92.5973318
# 50	265.82	265.62	0.20	92.211242
# 100	318.55	318.25	0.30	91.6321073
# 200	216.89	216.57	0.32	91.0143636
PAN	385.36	385.36	0.00	

Moisture			
Tare Weight	Sample Weight	Oven Dry Weight	Ratio
0.7893	5.1714	5.9059	0.9894

Bulk Density			
Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol Soil
68.7435	6.9253	103.3762	3.5491
		96.4509	

Hydrometer Readings	Sample Weight	49.38	Hydrometer #:
Time	Temp	Reading	Corr. Rdnng.
2 minutes	22.0	1.0240	1.020
5 minutes	22.0	1.0220	1.018
15 minutes	22.0	1.0200	1.016
30 minutes	22.0	1.0180	1.014
60 minutes	22.0	1.0150	1.011
250 minutes	22.0	1.0110	1.007
1440 minutes	22.0	1.0080	1.004
			0.0016



Particle Size Distribution

Sample: 410-66823-D-1	Date: 12/17/21	Init/Emp # VS41049
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Percent Passing	Particle Size
100.00	75
100.00	37.5
100.00	19
97.87	4.75
96.80	3.35
94.32	2.36
93.31	1.18
92.60	0.6
92.21	0.3
91.63	0.15
91.01	0.075
78.72	0.03713
70.80	0.02406
62.88	0.01422
54.96	0.01028
43.08	0.00752
27.24	0.00384
15.36	0.00165

- * Used for line 1
- ** Used for line 2
- *** Used for lines 1 and 2
- + Calculated from line 1
- ++ Calculated from line 2

Log (particle size)
-1.124939
-1.430306
-1.618682
-1.847141
-1.988003
-2.123915
-2.415209
-2.782829

Line 1 Regress
Constant
Std Err of Y Est
R Squared
No. of Observations
Degrees of Freedom
X Coefficient(s)
Std Err of Coef.

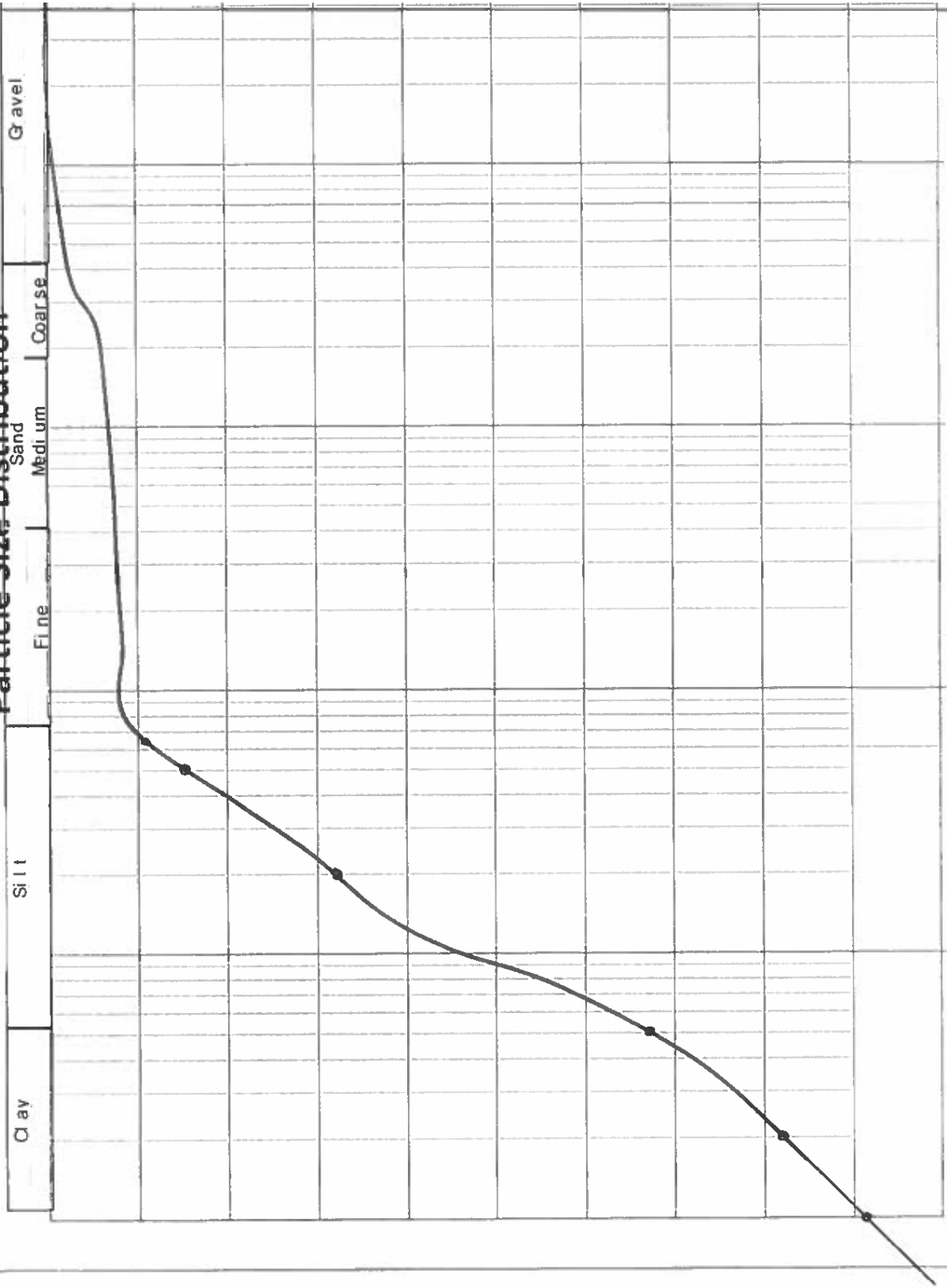
Line 2 Regress
Constant
Std Err of Y Est
R Squared
No. of Observations
Degrees of Freedom
X Coefficient(s)
Std Err of Coef.

Particle Size Calculated
0.064 <i>89</i>
0.05 <i>84.5</i>
0.02 <i>68</i>
0.005 <i>33</i>
0.002 <i>175</i>
0.001 <i>8</i>



10-66823-D-

Particle Size Distribution



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (54-135)	BFB (50-131)	DBFM (50-141)	TOL (52-141)
410-66823-1	BH-20 (9.5-10.0)	105 cn	102 cn	103 cn	98 cn
LCS 410-207064/4	Lab Control Sample	102	102	103	102
LCSD 410-207064/5	Lab Control Sample Dup	103	103	104	101
MB 410-207064/9	Method Blank	101	99	98	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (45-108)	NBZ (32-97)	2FP (26-96)	FBP (39-100)	TBP (13-121)	PHL (27-104)
410-66823-1	BH-20 (9.5-10.0)	35 S1- cn	11 S1- cn	33 cn	39 cn	24 cn	32 cn
LCS 410-209757/2-A	Lab Control Sample	96	74	65	79	81	70
MB 410-209757/1-A	Method Blank	101	77	70	90	79	71

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (54-143)	DCB2 (54-143)	TCX1 (20-131)	TCX2 (20-131)
410-66823-1	BH-20 (9.5-10.0)	68 cn	74 cn	79 cn	118 cn
LCS 410-209776/2-A	Lab Control Sample	101	126	26 p	40
MB 410-209776/1-A	Method Blank	79	102	26 p	44

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (45-143)	DCB2 (45-143)	TCX1 (53-140)	TCX2 (53-140)
410-66823-1	BH-20 (9.5-10.0)	64	76	62	69
LCS 410-209777/2-A	Lab Control Sample	100	96	103	101
MB 410-209777/1-A	Method Blank	81	74	84	80

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

DRAFT

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

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

Lab Sample ID: MB 410-207064/9

Matrix: Solid

Analysis Batch: 207064

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	20	U	250	20	ug/Kg			12/18/21 16:08	50
trans-1,3-Dichloropropene	25	U	250	25	ug/Kg			12/18/21 16:08	50
Ethylbenzene	20	U	250	20	ug/Kg			12/18/21 16:08	50
Styrene	20	U	250	20	ug/Kg			12/18/21 16:08	50
1,4-Dichlorobenzene	20	U	250	20	ug/Kg			12/18/21 16:08	50
1,2-Dibromoethane	20	U	250	20	ug/Kg			12/18/21 16:08	50
1,2-Dichloroethane	30	U	250	30	ug/Kg			12/18/21 16:08	50
4-Methyl-2-pentanone	50	U	500	50	ug/Kg			12/18/21 16:08	50
Methylcyclohexane	30	U	250	30	ug/Kg			12/18/21 16:08	50
Toluene	30	U	250	30	ug/Kg			12/18/21 16:08	50
Chlorobenzene	25	U	250	25	ug/Kg			12/18/21 16:08	50
Cyclohexane	25	U	250	25	ug/Kg			12/18/21 16:08	50
1,2,4-Trichlorobenzene	250	U	500	250	ug/Kg			12/18/21 16:08	50
1,4-Dioxane	1900	U	13000	1900	ug/Kg			12/18/21 16:08	50
Dibromochloromethane	100	U	250	100	ug/Kg			12/18/21 16:08	50
Tetrachloroethene	25	U	250	25	ug/Kg			12/18/21 16:08	50
cis-1,2-Dichloroethene	25	U	250	25	ug/Kg			12/18/21 16:08	50
trans-1,2-Dichloroethene	25	U	250	25	ug/Kg			12/18/21 16:08	50
Methyl tertiary butyl ether	25	U	250	25	ug/Kg			12/18/21 16:08	50
m&p-Xylene	50	U	250	50	ug/Kg			12/18/21 16:08	50
1,3-Dichlorobenzene	25	U	250	25	ug/Kg			12/18/21 16:08	50
Carbon tetrachloride	100	U	250	100	ug/Kg			12/18/21 16:08	50
2-Hexanone	50	U	500	50	ug/Kg			12/18/21 16:08	50
Acetone	300	U	1000	300	ug/Kg			12/18/21 16:08	50
Chloroform	30	U	250	30	ug/Kg			12/18/21 16:08	50
Benzene	25	U	250	25	ug/Kg			12/18/21 16:08	50
1,1,1-Trichloroethane	30	U	250	30	ug/Kg			12/18/21 16:08	50
Bromomethane	35	U	250	35	ug/Kg			12/18/21 16:08	50
Chloromethane	30	U	250	30	ug/Kg			12/18/21 16:08	50
Bromochloromethane	30	U	250	30	ug/Kg			12/18/21 16:08	50
Chloroethane	50	U	250	50	ug/Kg			12/18/21 16:08	50
Vinyl chloride	30	U	250	30	ug/Kg			12/18/21 16:08	50
Methylene Chloride	100	U	250	100	ug/Kg			12/18/21 16:08	50
Carbon disulfide	30	U	250	30	ug/Kg			12/18/21 16:08	50
Bromoform	250	U	500	250	ug/Kg			12/18/21 16:08	50
Bromodichloromethane	20	U	250	20	ug/Kg			12/18/21 16:08	50
1,1-Dichloroethane	25	U	250	25	ug/Kg			12/18/21 16:08	50
1,1-Dichloroethene	25	U	250	25	ug/Kg			12/18/21 16:08	50
Trichlorofluoromethane	35	U	250	35	ug/Kg			12/18/21 16:08	50
Dichlorodifluoromethane	30	U	250	30	ug/Kg			12/18/21 16:08	50
Freon 113	30	U	500	30	ug/Kg			12/18/21 16:08	50
1,2-Dichloropropane	25	U	250	25	ug/Kg			12/18/21 16:08	50
2-Butanone	100	U	500	100	ug/Kg			12/18/21 16:08	50
1,1,2-Trichloroethane	25	U	250	25	ug/Kg			12/18/21 16:08	50
Trichloroethene	25	U	250	25	ug/Kg			12/18/21 16:08	50
Methyl acetate	50	U	250	50	ug/Kg			12/18/21 16:08	50
1,1,2,2-Tetrachloroethane	20	U	250	20	ug/Kg			12/18/21 16:08	50
1,2,3-Trichlorobenzene	250	U	500	250	ug/Kg			12/18/21 16:08	50

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

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

Lab Sample ID: MB 410-207064/9

Matrix: Solid

Analysis Batch: 207064

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	20	U	250	20	ug/Kg			12/18/21 16:08	50
1,2-Dichlorobenzene	25	U	250	25	ug/Kg			12/18/21 16:08	50
1,2-Dibromo-3-Chloropropane	50	U	250	50	ug/Kg			12/18/21 16:08	50
Isopropylbenzene	20	U	250	20	ug/Kg			12/18/21 16:08	50

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	101		54 - 135		12/18/21 16:08	50
4-Bromofluorobenzene (Surr)	99		50 - 131		12/18/21 16:08	50
Dibromofluoromethane (Surr)	98		50 - 141		12/18/21 16:08	50
Toluene-d8 (Surr)	99		52 - 141		12/18/21 16:08	50

Lab Sample ID: LCS 410-207064/4

Matrix: Solid

Analysis Batch: 207064

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,3-Dichloropropene	1000	1080		ug/Kg		108	66 - 120
trans-1,3-Dichloropropene	1000	1120		ug/Kg		112	68 - 122
Ethylbenzene	1000	1040		ug/Kg		104	78 - 120
Styrene	1000	990		ug/Kg		99	76 - 120
1,4-Dichlorobenzene	1000	1010		ug/Kg		101	80 - 120
1,2-Dibromoethane	1000	1010		ug/Kg		101	76 - 120
1,2-Dichloroethane	1000	1120		ug/Kg		112	71 - 128
4-Methyl-2-pentanone	12500	13500		ug/Kg		108	67 - 128
Methylcyclohexane	1000	1050		ug/Kg		105	61 - 124
Toluene	1000	1030		ug/Kg		103	80 - 120
Chlorobenzene	1000	1030		ug/Kg		103	80 - 120
Cyclohexane	1000	1120		ug/Kg		112	58 - 126
1,2,4-Trichlorobenzene	1000	982		ug/Kg		98	56 - 130
1,4-Dioxane	25000	25500		ug/Kg		102	62 - 131
Dibromochloromethane	1000	1020		ug/Kg		102	69 - 125
Tetrachloroethene	1000	1000		ug/Kg		100	73 - 120
cis-1,2-Dichloroethene	1000	1050		ug/Kg		105	80 - 125
trans-1,2-Dichloroethene	1000	1000		ug/Kg		100	80 - 126
Methyl tertiary butyl ether	1000	1010		ug/Kg		101	72 - 120
m&p-Xylene	2000	2040		ug/Kg		102	80 - 120
1,3-Dichlorobenzene	1000	990		ug/Kg		99	75 - 120
Carbon tetrachloride	1000	1110		ug/Kg		111	64 - 134
2-Hexanone	12500	11700		ug/Kg		94	54 - 140
Acetone	12500	9110		ug/Kg		73	41 - 150
Chloroform	1000	1080		ug/Kg		108	80 - 120
Benzene	1000	1060		ug/Kg		106	80 - 120
1,1,1-Trichloroethane	1000	1080		ug/Kg		108	69 - 123
Bromomethane	1000	1090		ug/Kg		109	45 - 140
Chloromethane	1000	1170		ug/Kg		117	56 - 120
Bromochloromethane	1000	1010		ug/Kg		101	72 - 124
Chloroethane	1000	1160		ug/Kg		116	43 - 135
Vinyl chloride	1000	1150		ug/Kg		115	52 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

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

Lab Sample ID: LCS 410-207064/4

Matrix: Solid

Analysis Batch: 207064

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	1000	1040		ug/Kg		104	76 - 122
Carbon disulfide	1000	1040		ug/Kg		104	64 - 133
Bromoform	1000	925		ug/Kg		93	51 - 127
Bromodichloromethane	1000	1090		ug/Kg		109	70 - 120
1,1-Dichloroethane	1000	1060		ug/Kg		106	79 - 120
1,1-Dichloroethene	1000	1020		ug/Kg		102	73 - 129
Trichlorofluoromethane	1000	1110		ug/Kg		111	55 - 134
Dichlorodifluoromethane	1000	941		ug/Kg		94	21 - 127
Freon 113	1000	1060		ug/Kg		106	64 - 135
1,2-Dichloropropane	1000	1090		ug/Kg		109	80 - 120
2-Butanone	12500	8700		ug/Kg		70	57 - 128
1,1,2-Trichloroethane	1000	1030		ug/Kg		103	80 - 120
Trichloroethene	1000	1040		ug/Kg		104	80 - 120
Methyl acetate	1000	1160		ug/Kg		116	67 - 128
1,1,1,2-Tetrachloroethane	1000	1060		ug/Kg		106	69 - 125
1,2,3-Trichlorobenzene	1000	1010		ug/Kg		101	57 - 131
o-Xylene	1000	994		ug/Kg		99	75 - 120
1,2-Dichlorobenzene	1000	979		ug/Kg		98	76 - 120
1,2-Dibromo-3-Chloropropane	1000	905		ug/Kg		90	48 - 134
Isopropylbenzene	1000	1040		ug/Kg		104	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		54 - 135
4-Bromofluorobenzene (Surr)	102		50 - 131
Dibromofluoromethane (Surr)	103		50 - 141
Toluene-d8 (Surr)	102		52 - 141

Lab Sample ID: LCSD 410-207064/5

Matrix: Solid

Analysis Batch: 207064

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	1000	1090		ug/Kg		109	66 - 120	1	30
trans-1,3-Dichloropropene	1000	1120		ug/Kg		112	68 - 122	0	30
Ethylbenzene	1000	1040		ug/Kg		104	78 - 120	0	30
Styrene	1000	997		ug/Kg		100	76 - 120	1	30
1,4-Dichlorobenzene	1000	1000		ug/Kg		100	80 - 120	1	30
1,2-Dibromoethane	1000	1010		ug/Kg		101	76 - 120	0	30
1,2-Dichloroethane	1000	1120		ug/Kg		112	71 - 128	0	30
4-Methyl-2-pentanone	12500	14700		ug/Kg		118	67 - 128	8	30
Methylcyclohexane	1000	1030		ug/Kg		103	61 - 124	2	30
Toluene	1000	1030		ug/Kg		103	80 - 120	0	30
Chlorobenzene	1000	1030		ug/Kg		103	80 - 120	0	30
Cyclohexane	1000	1100		ug/Kg		110	58 - 126	2	30
1,2,4-Trichlorobenzene	1000	990		ug/Kg		99	56 - 130	1	30
1,4-Dioxane	25000	20800		ug/Kg		83	62 - 131	20	30
Dibromochloromethane	1000	1030		ug/Kg		103	69 - 125	1	30
Tetrachloroethene	1000	999		ug/Kg		100	73 - 120	1	30

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

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

Lab Sample ID: LCSD 410-207064/5

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 207064

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Added	Result	Qualifier				Limits		Limit
cis-1,2-Dichloroethene	1000	1070		ug/Kg		107	80 - 125	2	30
trans-1,2-Dichloroethene	1000	1030		ug/Kg		103	80 - 126	3	30
Methyl tertiary butyl ether	1000	1040		ug/Kg		104	72 - 120	3	30
m&p-Xylene	2000	2040		ug/Kg		102	80 - 120	0	30
1,3-Dichlorobenzene	1000	993		ug/Kg		99	75 - 120	0	30
Carbon tetrachloride	1000	1120		ug/Kg		112	64 - 134	1	30
2-Hexanone	12500	12400		ug/Kg		99	54 - 140	6	30
Acetone	12500	8780		ug/Kg		70	41 - 150	4	30
Chloroform	1000	1080		ug/Kg		108	80 - 120	1	30
Benzene	1000	1060		ug/Kg		106	80 - 120	0	30
1,1,1-Trichloroethane	1000	1080		ug/Kg		108	69 - 123	0	30
Bromomethane	1000	1200		ug/Kg		120	45 - 140	10	30
Chloromethane	1000	1160		ug/Kg		116	56 - 120	1	30
Bromochloromethane	1000	1010		ug/Kg		101	72 - 124	0	30
Chloroethane	1000	1340		ug/Kg		134	43 - 135	14	30
Vinyl chloride	1000	1150		ug/Kg		115	52 - 120	0	30
Methylene Chloride	1000	1050		ug/Kg		105	76 - 122	1	30
Carbon disulfide	1000	1030		ug/Kg		103	64 - 133	1	30
Bromoform	1000	955		ug/Kg		96	51 - 127	3	30
Bromodichloromethane	1000	1100		ug/Kg		110	70 - 120	1	30
1,1-Dichloroethane	1000	1070		ug/Kg		107	79 - 120	1	30
1,1-Dichloroethene	1000	1020		ug/Kg		102	73 - 129	1	30
Trichlorofluoromethane	1000	1090		ug/Kg		109	55 - 134	1	30
Dichlorodifluoromethane	1000	933		ug/Kg		93	21 - 127	1	30
Freon 113	1000	1070		ug/Kg		107	64 - 135	1	30
1,2-Dichloropropane	1000	1090		ug/Kg		109	80 - 120	1	30
2-Butanone	12500	9780		ug/Kg		78	57 - 128	12	30
1,1,2-Trichloroethane	1000	1030		ug/Kg		103	80 - 120	0	30
Trichloroethene	1000	1030		ug/Kg		103	80 - 120	1	30
Methyl acetate	1000	1270		ug/Kg		127	67 - 128	9	30
1,1,2,2-Tetrachloroethane	1000	1080		ug/Kg		108	69 - 125	2	30
1,2,3-Trichlorobenzene	1000	1000		ug/Kg		100	57 - 131	1	30
o-Xylene	1000	983		ug/Kg		98	75 - 120	1	30
1,2-Dichlorobenzene	1000	999		ug/Kg		100	76 - 120	2	30
1,2-Dibromo-3-Chloropropane	1000	954		ug/Kg		95	48 - 134	5	30
Isopropylbenzene	1000	1040		ug/Kg		104	77 - 120	0	30

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	103		54 - 135
4-Bromofluorobenzene (Surr)	103		50 - 131
Dibromofluoromethane (Surr)	104		50 - 141
Toluene-d8 (Surr)	101		52 - 141

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

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

Lab Sample ID: MB 410-209757/1-A
Matrix: Solid
Analysis Batch: 212515

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 209757

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1'-Biphenyl	17	U	37	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
1,2,4,5-Tetrachlorobenzene	17	U	37	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
2,2'-oxybis[1-chloropropane]	20	U	43	20	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
2,3,4,6-Tetrachlorophenol	67	U	170	67	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
2,4,5-Trichlorophenol	17	U	37	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
2,4,6-Trichlorophenol	17	U	37	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
2,4-Dichlorophenol	20	U	43	20	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
2,4-Dimethylphenol	17	U	37	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
2,4-Dinitrophenol	170	U	1000	170	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
2,4-Dinitrotoluene	33	U	170	33	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
2,6-Dinitrotoluene	17	U	37	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
2-Chloronaphthalene	13	U	33	13	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
2-Chlorophenol	17	U	37	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
2-Methylnaphthalene	5.0	U	17	5.0	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
2-Methylphenol	20	U	50	20	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
2-Nitroaniline	17	U	50	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
2-Nitrophenol	20	U	50	20	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
3,3'-Dichlorobenzidine	33	U	170	33	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
3-Nitroaniline	33	U	170	33	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
4,6-Dinitro-2-methylphenol	170	U	500	170	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
4-Bromophenyl-phenylether	17	U	37	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
4-Chloro-3-methylphenol	20	U	50	20	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
4-Methylphenol	17	U	50	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
4-Nitroaniline	33	U	170	33	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
4-Nitrophenol	170	U	500	170	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Acenaphthene	3.3	U	17	3.3	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Acenaphthylene	4.0	U	17	4.0	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Acetophenone	17	U	50	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Anthracene	3.3	U	17	3.3	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Atrazine	67	U	170	67	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Benzaldehyde	33	U	170	33	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Benzo[a]anthracene	3.3	U	17	3.3	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Benzo[a]pyrene	3.3	U	17	3.3	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Benzo[b]fluoranthene	3.3	U	17	3.3	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Benzo[g,h,i]perylene	3.3	U	17	3.3	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Benzo[k]fluoranthene	3.3	U	17	3.3	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Bis(2-chloroethoxy)methane	17	U	37	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Bis(2-chloroethyl)ether	17	U	37	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Bis(2-ethylhexyl) phthalate	67	U	170	67	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Butylbenzylphthalate	67	U	170	67	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Caprolactam	33	U	170	33	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Carbazole	17	U	37	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Chrysene	3.3	U	17	3.3	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Di-n-butyl phthalate	67	U	170	67	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Di-n-octyl phthalate	67	U	170	67	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Dibenz(a,h)anthracene	6.7	U	17	6.7	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Dibenzofuran	17	U	37	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Diethyl phthalate	67	U	170	67	ug/Kg		12/28/21 15:58	01/07/22 01:39	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

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

Lab Sample ID: MB 410-209757/1-A

Matrix: Solid

Analysis Batch: 212515

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 209757

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dimethyl phthalate	67	U	170	67	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Fluoranthene	3.3	U	17	3.3	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Fluorene	3.3	U	17	3.3	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Hexachlorobenzene	6.7	U	17	6.7	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Hexachlorobutadiene	20	U	50	20	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Hexachlorocyclopentadiene	170	U	500	170	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Hexachloroethane	33	U	170	33	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Indeno[1,2,3-cd]pyrene	4.0	U	17	4.0	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Isophorone	17	U	67	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
N-Nitrosodi-n-propylamine	33	U	67	33	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
N-Nitrosodiphenylamine	17	U	37	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Naphthalene	6.7	U	17	6.7	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Nitrobenzene	17	U	37	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Phenanthrene	4.0	U	17	4.0	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Phenol	17	U	37	17	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Pyrene	3.3	U	17	3.3	ug/Kg		12/28/21 15:58	01/07/22 01:39	1
Pentachlorophenol	67	U	170	67	ug/Kg		12/28/21 15:58	01/07/22 01:39	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
p-Terphenyl-d14 (Surr)	101		45 - 108	12/28/21 15:58	01/07/22 01:39	1
Nitrobenzene-d5 (Surr)	77		32 - 97	12/28/21 15:58	01/07/22 01:39	1
2-Fluorophenol (Surr)	70		26 - 96	12/28/21 15:58	01/07/22 01:39	1
2-Fluorobiphenyl (Surr)	90		39 - 100	12/28/21 15:58	01/07/22 01:39	1
2,4,6-Tribromophenol (Surr)	79		13 - 121	12/28/21 15:58	01/07/22 01:39	1
Phenol-d5 (Surr)	71		27 - 104	12/28/21 15:58	01/07/22 01:39	1

Lab Sample ID: LCS 410-209757/2-A

Matrix: Solid

Analysis Batch: 212515

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 209757

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	1670	1460		ug/Kg		88	60 - 120
2,2'-oxybis[1-chloropropane]	1670	1130		ug/Kg		68	48 - 120
2,3,4,6-Tetrachlorophenol	1670	1230		ug/Kg		74	59 - 120
2,4,5-Trichlorophenol	1670	1520		ug/Kg		91	61 - 120
2,4,6-Trichlorophenol	1670	1340		ug/Kg		80	59 - 120
2,4-Dichlorophenol	1670	1250		ug/Kg		75	62 - 120
2,4-Dimethylphenol	1670	1470		ug/Kg		88	65 - 120
2,4-Dinitrophenol	3330	1970		ug/Kg		59	44 - 120
2,4-Dinitrotoluene	1670	1600		ug/Kg		96	68 - 120
2,6-Dinitrotoluene	1670	1640		ug/Kg		98	67 - 120
2-Chloronaphthalene	1670	1400		ug/Kg		84	61 - 120
2-Chlorophenol	1670	1200		ug/Kg		72	59 - 120
2-Methylnaphthalene	1670	1510		ug/Kg		90	63 - 120
2-Methylphenol	1670	1170		ug/Kg		70	63 - 120
2-Nitroaniline	1670	1770		ug/Kg		106	64 - 120
2-Nitrophenol	1670	1380		ug/Kg		83	55 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

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

Lab Sample ID: LCS 410-209757/2-A

Matrix: Solid

Analysis Batch: 212515

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 209757

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
3,3'-Dichlorobenzidine	3330	2180		ug/Kg		65	19 - 120
3-Nitroaniline	1670	1060		ug/Kg		64	31 - 120
4,6-Dinitro-2-methylphenol	3330	2260		ug/Kg		68	59 - 120
4-Bromophenyl-phenylether	1670	1460		ug/Kg		88	65 - 120
4-Chloro-3-methylphenol	1670	1370		ug/Kg		82	67 - 120
4-Methylphenol	1670	1070		ug/Kg		64	56 - 120
4-Nitroaniline	1670	1340		ug/Kg		80	59 - 120
4-Nitrophenol	3330	2550		ug/Kg		76	58 - 120
Acenaphthene	1670	1440		ug/Kg		86	61 - 120
Acenaphthylene	1670	1470		ug/Kg		88	69 - 120
Acetophenone	1670	1050		ug/Kg		63	54 - 120
Anthracene	1670	1470		ug/Kg		88	75 - 120
Atrazine	1670	1330		ug/Kg		80	63 - 127
Benzaldehyde	1670	776		ug/Kg		47	25 - 120
Benzo[a]anthracene	1670	1670		ug/Kg		100	73 - 120
Benzo[a]pyrene	1670	1820		ug/Kg		109	80 - 123
Benzo[b]fluoranthene	1670	1520		ug/Kg		91	63 - 120
Benzo[g,h,i]perylene	1670	1510		ug/Kg		91	77 - 120
Benzo[k]fluoranthene	1670	1770		ug/Kg		106	68 - 120
Bis(2-chloroethoxy)methane	1670	1330		ug/Kg		80	55 - 120
Bis(2-chloroethyl)ether	1670	1080		ug/Kg		65	49 - 120
Bis(2-ethylhexyl) phthalate	1670	1500		ug/Kg		90	65 - 120
Butylbenzylphthalate	1670	1480		ug/Kg		89	66 - 120
Caprolactam	1670	1470		ug/Kg		88	54 - 120
Carbazole	1670	1430		ug/Kg		86	74 - 120
Chrysene	1670	1590		ug/Kg		95	66 - 120
Di-n-butyl phthalate	1670	1440		ug/Kg		86	65 - 120
Di-n-octyl phthalate	1670	1570		ug/Kg		94	60 - 125
Dibenz(a,h)anthracene	1670	1750		ug/Kg		105	72 - 120
Dibenzofuran	1670	1510		ug/Kg		90	68 - 120
Diethyl phthalate	1670	1520		ug/Kg		91	65 - 120
Dimethyl phthalate	1670	1390		ug/Kg		83	67 - 120
Fluoranthene	1670	1530		ug/Kg		92	71 - 120
Fluorene	1670	1440		ug/Kg		87	68 - 120
Hexachlorobenzene	1670	1550		ug/Kg		93	58 - 120
Hexachlorobutadiene	1670	1400		ug/Kg		84	48 - 120
Hexachlorocyclopentadiene	1670	1480		ug/Kg		89	43 - 120
Hexachloroethane	1670	940		ug/Kg		56	48 - 120
Indeno[1,2,3-cd]pyrene	1670	1590		ug/Kg		95	71 - 122
Isophorone	1670	1350		ug/Kg		81	62 - 120
N-Nitrosodi-n-propylamine	1670	1110		ug/Kg		67	55 - 120
N-Nitrosodiphenylamine	1420	1180		ug/Kg		83	71 - 120
Naphthalene	1670	1350		ug/Kg		81	60 - 120
Nitrobenzene	1670	1370		ug/Kg		82	56 - 120
Phenanthrene	1670	1460		ug/Kg		88	74 - 120
Phenol	1670	1210		ug/Kg		72	57 - 120
Pyrene	1670	1560		ug/Kg		93	70 - 120
Pentachlorophenol	3330	2790		ug/Kg		84	41 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

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

Lab Sample ID: LCS 410-209757/2-A

Matrix: Solid

Analysis Batch: 212515

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 209757

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
p-Terphenyl-d14 (Surr)	96		45 - 108
Nitrobenzene-d5 (Surr)	74		32 - 97
2-Fluorophenol (Surr)	65		26 - 96
2-Fluorobiphenyl (Surr)	79		39 - 100
2,4,6-Tribromophenol (Surr)	81		13 - 121
Phenol-d5 (Surr)	70		27 - 104

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-209776/1-A

Matrix: Solid

Analysis Batch: 209924

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 209776

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin (1C)	0.17	U	0.83	0.17	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
alpha-BHC (1C)	0.17	U	0.83	0.17	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
alpha-Chlordane (1C)	0.17	U	0.83	0.17	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
beta-BHC (1C)	0.44	U	1.0	0.44	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
delta-BHC (1C)	0.45	U	1.0	0.45	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
Dieldrin (1C)	0.33	U	1.7	0.33	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
Endosulfan I (1C)	0.22	U	0.83	0.22	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
Endosulfan II (1C)	1.1	U	2.3	1.1	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
Endosulfan sulfate (1C)	0.33	U	1.7	0.33	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
Endrin (1C)	0.68	U	1.7	0.68	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
Endrin aldehyde (1C)	0.33	U	1.7	0.33	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
Endrin ketone (1C)	0.60	U	2.0	0.60	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
gamma-BHC (Lindane) (1C)	0.21	U	0.83	0.21	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
gamma-Chlordane (1C)	0.25	U	0.83	0.25	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
Heptachlor (1C)	0.31	U	0.83	0.31	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
Heptachlor epoxide (1C)	0.17	U	0.83	0.17	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
Methoxychlor (1C)	1.8	U	6.7	1.8	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
Toxaphene (1C)	14	U	33	14	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
p,p'-DDD (1C)	0.33	U	1.7	0.33	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
p,p'-DDE (1C)	0.33	U	1.7	0.33	ug/Kg		12/28/21 16:27	12/29/21 07:39	1
p,p'-DDT (1C)	0.79	U	1.7	0.79	ug/Kg		12/28/21 16:27	12/29/21 07:39	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	79		54 - 143	12/28/21 16:27	12/29/21 07:39	1
DCB Decachlorobiphenyl (Surr) (2C)	102		54 - 143	12/28/21 16:27	12/29/21 07:39	1
Tetrachloro-m-xylene (Surr) (1C)	26	p	20 - 131	12/28/21 16:27	12/29/21 07:39	1
Tetrachloro-m-xylene (Surr) (2C)	44		20 - 131	12/28/21 16:27	12/29/21 07:39	1

Lab Sample ID: LCS 410-209776/2-A

Matrix: Solid

Analysis Batch: 209924

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 209776

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

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

Lab Sample ID: LCS 410-209776/2-A

Matrix: Solid

Analysis Batch: 209924

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 209776

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha-BHC (1C)	3.33	2.57		ug/Kg		77	55 - 135
beta-BHC (1C)	3.33	2.86		ug/Kg		86	50 - 132
delta-BHC (1C)	3.33	0.755	J *	ug/Kg		23	47 - 141
Dieldrin (1C)	6.67	6.34		ug/Kg		95	54 - 136
Endosulfan I (1C)	3.33	3.05		ug/Kg		91	51 - 124
Endosulfan II (1C)	6.67	6.34		ug/Kg		95	56 - 125
Endosulfan sulfate (1C)	6.67	6.52		ug/Kg		98	56 - 125
Endrin (1C)	6.67	6.47		ug/Kg		97	56 - 129
Endrin aldehyde (1C)	6.67	6.07		ug/Kg		91	46 - 133
Endrin ketone (1C)	6.67	7.42		ug/Kg		111	55 - 128
gamma-BHC (Lindane) (1C)	3.33	2.61		ug/Kg		78	52 - 138
Heptachlor (1C)	3.33	3.23		ug/Kg		97	52 - 139
Heptachlor epoxide (1C)	3.33	3.04		ug/Kg		91	55 - 133
Methoxychlor (1C)	33.3	44.3		ug/Kg		133	54 - 148
p,p'-DDD (1C)	6.67	6.59		ug/Kg		99	59 - 135
p,p'-DDE (1C)	6.67	6.24		ug/Kg		94	57 - 135
p,p'-DDT (1C)	6.67	8.01		ug/Kg		120	53 - 151

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	101		54 - 143
DCB Decachlorobiphenyl (Surr) (2C)	126		54 - 143
Tetrachloro-m-xylene (Surr) (1C)	26	p	20 - 131
Tetrachloro-m-xylene (Surr) (2C)	40		20 - 131

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

Lab Sample ID: MB 410-209777/1-A

Matrix: Solid

Analysis Batch: 209970

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 209777

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	5.3	U	17	5.3	ug/Kg		12/28/21 16:30	12/29/21 08:14	1
PCB-1221 (1C)	5.3	U	17	5.3	ug/Kg		12/28/21 16:30	12/29/21 08:14	1
PCB-1232 (1C)	5.3	U	17	5.3	ug/Kg		12/28/21 16:30	12/29/21 08:14	1
PCB-1242 (1C)	5.3	U	17	5.3	ug/Kg		12/28/21 16:30	12/29/21 08:14	1
PCB-1248 (1C)	5.3	U	17	5.3	ug/Kg		12/28/21 16:30	12/29/21 08:14	1
PCB-1254 (1C)	6.4	U	17	6.4	ug/Kg		12/28/21 16:30	12/29/21 08:14	1
PCB-1260 (1C)	6.4	U	17	6.4	ug/Kg		12/28/21 16:30	12/29/21 08:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	81		45 - 143	12/28/21 16:30	12/29/21 08:14	1
DCB Decachlorobiphenyl (Surr) (2C)	74		45 - 143	12/28/21 16:30	12/29/21 08:14	1
Tetrachloro-m-xylene (1C)	84		53 - 140	12/28/21 16:30	12/29/21 08:14	1
Tetrachloro-m-xylene (2C)	80		53 - 140	12/28/21 16:30	12/29/21 08:14	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

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

Lab Sample ID: LCS 410-209777/2-A
Matrix: Solid
Analysis Batch: 209970

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 209777

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016 (1C)	167	146		ug/Kg		88	68 - 121
PCB-1260 (1C)	168	173		ug/Kg		103	75 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	100		45 - 143
DCB Decachlorobiphenyl (Surr) (2C)	96		45 - 143
Tetrachloro-m-xylene (1C)	103		53 - 140
Tetrachloro-m-xylene (2C)	101		53 - 140

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-205857/1-A
Matrix: Solid
Analysis Batch: 207511

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 205857

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.7	U	5.0	1.7	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Aluminum	11	U	20	11	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Barium	0.15	U	0.50	0.15	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Beryllium	0.10	U	0.50	0.10	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Cadmium	0.10	U	0.50	0.10	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Calcium	12	U	50	12	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Chromium	0.18	U	1.5	0.18	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Cobalt	0.15	U	0.50	0.15	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Copper	0.77	U	2.0	0.77	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Iron	6.2	U	20	6.2	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Lead	0.60	U	1.5	0.60	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Magnesium	4.0	U	10	4.0	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Manganese	0.52	U	1.0	0.52	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Nickel	0.26	U	1.0	0.26	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Potassium	20	U	50	20	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Selenium	1.5	U	5.0	1.5	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Silver	0.40	U ^5-	1.0	0.40	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Sodium	46	U	100	46	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Thallium	1.3	U ^3+	3.0	1.3	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Zinc	1.0	U	2.0	1.0	mg/Kg		12/15/21 17:50	12/20/21 11:52	1
Vanadium	0.43	U	1.0	0.43	mg/Kg		12/15/21 17:50	12/20/21 11:52	1

Lab Sample ID: MB 410-205857/1-A
Matrix: Solid
Analysis Batch: 207694

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 205857

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.4	U	3.0	1.4	mg/Kg		12/15/21 17:50	12/20/21 22:14	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

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

Lab Sample ID: LCS 410-205857/2-A
Matrix: Solid
Analysis Batch: 207511

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 205857

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	10.0	11.5		mg/Kg		115	80 - 120
Aluminum	500	503		mg/Kg		101	80 - 120
Barium	50.0	52.4		mg/Kg		105	80 - 120
Beryllium	5.00	5.14		mg/Kg		103	80 - 120
Cadmium	5.00	5.21		mg/Kg		104	80 - 120
Calcium	500	513		mg/Kg		103	80 - 120
Chromium	50.0	51.9		mg/Kg		104	80 - 120
Cobalt	50.0	52.8		mg/Kg		106	80 - 120
Copper	50.0	52.1		mg/Kg		104	80 - 120
Iron	500	500		mg/Kg		100	80 - 120
Lead	5.00	5.22		mg/Kg		104	80 - 120
Magnesium	500	509		mg/Kg		102	80 - 120
Manganese	50.0	51.9		mg/Kg		104	80 - 120
Nickel	50.0	53.8		mg/Kg		108	80 - 120
Potassium	500	496		mg/Kg		99	80 - 120
Selenium	10.0	8.49		mg/Kg		85	80 - 120
Silver	5.00	5.13	^5-	mg/Kg		103	80 - 120
Sodium	500	507		mg/Kg		101	80 - 120
Thallium	9.99	9.89	^3+	mg/Kg		99	80 - 120
Zinc	50.0	49.7		mg/Kg		99	80 - 120
Vanadium	50.0	51.0		mg/Kg		102	80 - 120

Lab Sample ID: LCS 410-205857/2-A
Matrix: Solid
Analysis Batch: 207694

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 205857

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	50.5		mg/Kg		101	80 - 120

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-205942/1-A
Matrix: Solid
Analysis Batch: 206445

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 205942

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	U	0.036	0.015	mg/Kg		12/15/21 22:16	12/16/21 19:13	1

Lab Sample ID: LCS 410-205942/2-A
Matrix: Solid
Analysis Batch: 206445

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 205942

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.100	0.114		mg/Kg		114	80 - 120

QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Method: EPA-Lloyd Kahn - Organic Carbon, Total (TOC)

Lab Sample ID: MB 180-383330/4
Matrix: Solid
Analysis Batch: 383330

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	970	U	1000	970	mg/Kg			12/22/21 17:01	1

Lab Sample ID: LCS 180-383330/5
Matrix: Solid
Analysis Batch: 383330

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	38200	38800		mg/Kg		102	75 - 125

DRAFT

- 1
- 2
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- 14
- 15

Marginal Exceedance (ME) Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LCS 410-209776/2-A

Matrix: Solid

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	%Rec	%Rec. Limits	ME %Rec. Limits	Marginal Exceedance
								Status
Aldrin (1C)	3.33	2.98		ug/Kg	89	56 - 134	51 - 126	
alpha-BHC (1C)	3.33	2.57		ug/Kg	77	55 - 135	55 - 134	
beta-BHC (1C)	3.33	2.86		ug/Kg	86	50 - 132	58 - 139	
delta-BHC (1C)	3.33	0.755	J *-	ug/Kg	23	47 - 141	27 - 169	X
Dieldrin (1C)	6.67	6.34		ug/Kg	95	54 - 136	53 - 137	
Endosulfan I (1C)	3.33	3.05		ug/Kg	91	51 - 124	53 - 128	
Endosulfan II (1C)	6.67	6.34		ug/Kg	95	56 - 125	55 - 136	
Endosulfan sulfate (1C)	6.67	6.52		ug/Kg	98	56 - 125	65 - 143	
Endrin (1C)	6.67	6.47		ug/Kg	97	56 - 129	77 - 143	
Endrin aldehyde (1C)	6.67	6.07		ug/Kg	91	46 - 133	49 - 133	
Endrin ketone (1C)	6.67	7.42		ug/Kg	111	55 - 128	77 - 139	
gamma-BHC (Lindane) (1C)	3.33	2.61		ug/Kg	78	52 - 138	57 - 144	
Heptachlor (1C)	3.33	3.23		ug/Kg	97	52 - 139	58 - 126	
Heptachlor epoxide (1C)	3.33	3.04		ug/Kg	91	55 - 133	65 - 137	
Methoxychlor (1C)	33.3	44.3		ug/Kg	133	54 - 148	78 - 154	
p,p'-DDD (1C)	6.67	6.59		ug/Kg	99	59 - 135	57 - 150	
p,p'-DDE (1C)	6.67	6.24		ug/Kg	94	57 - 135	54 - 159	
p,p'-DDT (1C)	6.67	8.01		ug/Kg	120	53 - 151	56 - 147	

Summary

Number of Analytes Reported	Number of Marginal Exceedances Allowed	Number of Marginal Exceedances Found
18	1	0

X = % Recovery is greater than widest possible limit

DRAFT

- 1
- 2
- 3
- 4
- 5
- 6
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- 8
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- 11
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- 13
- 14
- 15

QC Association Summary

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

GC/MS VOA

Prep Batch: 205871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66823-1	BH-20 (9.5-10.0)	Total/NA	Solid	5035	

Analysis Batch: 207064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66823-1	BH-20 (9.5-10.0)	Total/NA	Solid	8260C	205871
MB 410-207064/9	Method Blank	Total/NA	Solid	8260C	
LCS 410-207064/4	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-207064/5	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 209757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66823-1	BH-20 (9.5-10.0)	Total/NA	Solid	3546	
MB 410-209757/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-209757/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 212515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66823-1	BH-20 (9.5-10.0)	Total/NA	Solid	8270D	209757
MB 410-209757/1-A	Method Blank	Total/NA	Solid	8270D	209757
LCS 410-209757/2-A	Lab Control Sample	Total/NA	Solid	8270D	209757

GC Semi VOA

Prep Batch: 209776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66823-1	BH-20 (9.5-10.0)	Total/NA	Solid	3546	
MB 410-209776/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-209776/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 209777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66823-1	BH-20 (9.5-10.0)	Total/NA	Solid	3546	
MB 410-209777/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-209777/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 209924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66823-1	BH-20 (9.5-10.0)	Total/NA	Solid	8081B	209776
MB 410-209776/1-A	Method Blank	Total/NA	Solid	8081B	209776
LCS 410-209776/2-A	Lab Control Sample	Total/NA	Solid	8081B	209776

Analysis Batch: 209970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66823-1	BH-20 (9.5-10.0)	Total/NA	Solid	8082A	209777
MB 410-209777/1-A	Method Blank	Total/NA	Solid	8082A	209777
LCS 410-209777/2-A	Lab Control Sample	Total/NA	Solid	8082A	209777

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Metals

Prep Batch: 205857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66823-1	BH-20 (9.5-10.0)	Total/NA	Solid	3050B	
MB 410-205857/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-205857/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 205942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66823-1	BH-20 (9.5-10.0)	Total/NA	Solid	7471B	
MB 410-205942/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-205942/2-A	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 206445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66823-1	BH-20 (9.5-10.0)	Total/NA	Solid	7471B	205942
MB 410-205942/1-A	Method Blank	Total/NA	Solid	7471B	205942
LCS 410-205942/2-A	Lab Control Sample	Total/NA	Solid	7471B	205942

Analysis Batch: 207511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66823-1	BH-20 (9.5-10.0)	Total/NA	Solid	6010D	205857
MB 410-205857/1-A	Method Blank	Total/NA	Solid	6010D	205857
LCS 410-205857/2-A	Lab Control Sample	Total/NA	Solid	6010D	205857

Analysis Batch: 207694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66823-1	BH-20 (9.5-10.0)	Total/NA	Solid	6010D	205857
MB 410-205857/1-A	Method Blank	Total/NA	Solid	6010D	205857
LCS 410-205857/2-A	Lab Control Sample	Total/NA	Solid	6010D	205857

General Chemistry

Analysis Batch: 205504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66823-1	BH-20 (9.5-10.0)	Total/NA	Solid	Moisture	

Analysis Batch: 383330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66823-1	BH-20 (9.5-10.0)	Total/NA	Solid	EPA-Lloyd Kahn	
MB 180-383330/4	Method Blank	Total/NA	Solid	EPA-Lloyd Kahn	
LCS 180-383330/5	Lab Control Sample	Total/NA	Solid	EPA-Lloyd Kahn	

Geotechnical

Analysis Batch: 212338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-66823-1	BH-20 (9.5-10.0)	Total/NA	Solid	D422	

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Client Sample ID: BH-20 (9.5-10.0)

Lab Sample ID: 410-66823-1

Date Collected: 12/14/21 09:25

Matrix: Solid

Date Received: 12/14/21 18:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	205504	12/15/21 08:04	UVJN	ELLE
Total/NA	Analysis	D422		1	212338	12/17/21 12:25	DZU8	ELLE

Client Sample ID: BH-20 (9.5-10.0)

Lab Sample ID: 410-66823-1

Date Collected: 12/14/21 09:25

Matrix: Solid

Date Received: 12/14/21 18:03

Percent Solids: 64.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			205871	12/15/21 18:58	D8NM	ELLE
Total/NA	Analysis	8260C		50	207064	12/18/21 21:11	UCB5	ELLE
Total/NA	Prep	3546			209757	12/28/21 15:58	FTV5	ELLE
Total/NA	Analysis	8270D		1	212515	01/07/22 02:31	DZ6A	ELLE
Total/NA	Prep	3546			209776	12/28/21 16:27	FTV5	ELLE
Total/NA	Analysis	8081B		5	209924	12/29/21 09:39	WN7O	ELLE
Total/NA	Prep	3546			209777	12/28/21 16:30	FTV5	ELLE
Total/NA	Analysis	8082A		1	209970	12/29/21 08:55	JC94	ELLE
Total/NA	Prep	3050B			205857	12/15/21 17:50	UJLA	ELLE
Total/NA	Analysis	6010D		1	207511	12/20/21 12:50	WJM9	ELLE
Total/NA	Prep	3050B			205857	12/15/21 17:50	UJLA	ELLE
Total/NA	Analysis	6010D		5	207694	12/20/21 22:20	T8CQ	ELLE
Total/NA	Prep	7471B			205942	12/15/21 22:16	UAMX	ELLE
Total/NA	Analysis	7471B		1	206445	12/16/21 19:31	UEFS	ELLE
Total/NA	Analysis	EPA-Lloyd Kahn		1	383330	12/22/21 22:14	DLF	TAL PIT

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22

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
8260C	5035	Solid	m&p-Xylene
8260C	5035	Solid	o-Xylene
D422		Solid	0.001 mm
D422		Solid	0.002 mm
D422		Solid	0.005 mm
D422		Solid	0.02 mm
D422		Solid	0.05 mm
D422		Solid	0.064 mm
D422		Solid	0.075 mm
D422		Solid	0.15 mm
D422		Solid	0.3 mm
D422		Solid	0.6 mm
D422		Solid	1.18 mm
D422		Solid	19 mm
D422		Solid	2.36 mm
D422		Solid	3.35 mm
D422		Solid	37.5 mm
D422		Solid	4.75 mm
D422		Solid	75 mm
D422		Solid	Clay
D422		Solid	Gravel
D422		Solid	Sand
D422		Solid	Silt
Moisture		Solid	Percent Moisture

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	01-02-22
California	State	2891	04-30-22
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	06-30-22
Georgia	State	PA 02-00416	01-02-22
Illinois	NELAP	004375	01-02-22
Kansas	NELAP	E-10350	01-02-22
Kentucky (UST)	State	162013	04-30-22
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	06-30-22
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-22-21
Nevada	State	PA00164	08-31-22
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	01-02-22
New York	NELAP	11182	01-02-22
North Carolina (WW/SW)	State	434	12-31-21

Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Laboratory: Eurofins Pittsburgh (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-227	04-30-22
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	01-02-22
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-22
Texas	NELAP	T104704528	01-02-22
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-22
Virginia	NELAP	10043	01-02-22
West Virginia DEP	State	142	01-02-22
Wisconsin	State	998027800	08-31-22

DRAFT

Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
6010D	Metals (ICP)	SW846	ELLE
7471B	Mercury (CVAA)	SW846	ELLE
EPA-Lloyd Kahn	Organic Carbon, Total (TOC)	EPA	TAL PIT
Moisture	Percent Moisture	EPA	ELLE
D422	Grain Size	ASTM	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
7471B	Preparation, Mercury	SW846	ELLE

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

DRAFT

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Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-66823-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-66823-1	BH-20 (9.5-10.0)	Solid	12/14/21 09:25	12/14/21 18:03

DRAFT

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- 10
- 11
- 12
- 13
- 14
- 15

>> Select

#N/A
#N/A
#N/A
##



410-66823 Chain of Custody

Chain of Custody Record



Environment Testing
America

Regulatory Program: DW NPDES RCRA Other: VADEP

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact		Project Manager: Ashley Sweeney		Site Contact: Polly N.		Date: 12/14/21		COC No: 1 of 1 COCs	
Your Company Name here: Kwik Properties		Email: asweeney@wikinc.com		Lab Contact:		Carrier:		TALS Project #:	
Address: 407 HURON DRIVE		Tel/Fax:		Analysis Turnaround Time				Sampler:	
City/State/Zip: Logan TWP, NJ 08085				<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS				For Lab Use Only:	
(xxx) xxx-xxxx Phone: X50-423-2800				TAT if different from Below				Walk-in Client:	
(xxx) xxx-xxxx FAX:				<input checked="" type="checkbox"/> 2 weeks				Lab Sampling:	
Project Name: Miller - Alexandria				<input type="checkbox"/> 1 week					
Site: Alexandria, VA				<input type="checkbox"/> 2 days					
P O #				<input type="checkbox"/> 1 day				Job / SDG No.:	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	D422 - Organics	8200C - TCL VOCs	Mustark - % Moisture	8700B - TCL 1.2 SVOCs	8081B - TCL OC Parameters	8082A - Standard RB list	6010D - TRL Metals (13 metals)	7471B - Mercury	1100 - YMO - TOC	Sample Specific Notes:
BH-20 (9.5-10.0)	12/14/21	9:25	G	Soil	6			X	X	X	X	X	X	X	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: 4.1 Corr'd: 4.4		Therm ID No. 4073001011	
Relinquished by: [Signature]	Company: Kwik	Date/Time: 12/14/21	Received by: [Signature]	Company: EPA-Bact	Date/Time: 12/14/21 1220		
Relinquished by: [Signature]	Company: EPA-Bact	Date/Time: 12/14/21 1345	Received by: [Signature]	Company: EPA-Bact	Date/Time: 12/14/21 1345		
Relinquished by: [Signature]	Company:	Date/Time: 12/14/21 1735	Received in Laboratory by: [Signature]	Company: EPA	Date/Time: 12/14/21 1735		

Do Not Lift Us

ORIGIN ID: LNSG (217) 566-8901
SHIPPING DEPARTMENT
BIOLOGICALS LANCASTER LABS. INC.
2425 NEW HOLLAND PIKE

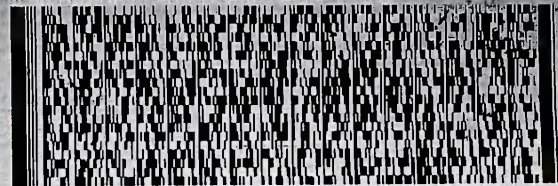
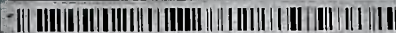
SHIP DATE: 11/18/22
ACTIVITY: 11/18/22
CITY: LANCASTER, PA
PHONE: 717-397-1111

LANCASTER, PA 17601
UNITED STATES US

BILL BENZER

TO SAMPLE RECEIVING
TEST AMERICA
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238

(412) 983-7068
DEPT: 4031



FedEx
Express



92110201210101

TRK# 1036 8604 1541
0201

SATURDAY 12:00P
PRIORITY OVERNIGHT

NO AGCA

15238
PA-US PIT

Uncorrected temp
Thermometer ID

4.0
16
8

CF Initials

PT-WI-SR-001 effective 11/8/18



Part # 156148-434 MTW EXP 08/22

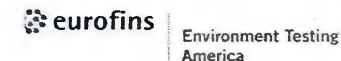
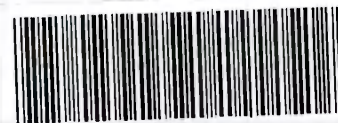


1/7/2022

Eurofins Lancaster Laboratories Env, LLC

2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

Chain of Custody Record



410-66823 Chain of Custody

Client Information (Sub Contract Lab)				Sampler:	Lab PM: Tessier, Kelly	COC No: 410-1151775.1						
Client Contact: Shipping/Receiving				Phone:	E-Mail: kelly.tessier@eurofinset.com	Page: Page 1 of 1						
Company: TestAmerica Laboratories, Inc.				Accreditations Required (See note): NELAP - Virginia				Job #: 410-66823-1				
Address: 301 Alpha Drive, RIDC Park, City: Pittsburgh State, Zip: PA, 15238 Phone: 412-963-7058(Tel) 412-963-2468(Fax) Email:				Due Date Requested: 1/13/2022		Analysis Requested				Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:		
Project Name: Mueser - Alexandria				TAT Requested (days):								
Site:				PO #:								
Project #: 41008456				WO #:		Field Filtered Sample (Yes or No)				Total Number of containers		
SSOW#:				Perform MS/MSD (Yes or No)		Lloyd_Kahn_Mod						
Sample Identification - Client ID (Lab ID)				Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)					Special Instructions/Note:
BH-20 (9.5-10.0) (410-66823-1)				12/14/21	09:25 Eastern		Solid	X				1
<p>Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Env places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Env laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Env attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Lancaster Laboratories Env.</p>												
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
Unconfirmed						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested: I, II, III, IV, Other (specify)				Primary Deliverable Rank: 2				Special Instructions/QC Requirements:				
Empty Kit Relinquished by:				Date:		Time:		Method of Shipment:				
Relinquished by: <i>Dawn Kott</i>				Date/Time: 12-17-2021 1541		Company: ELLC		Received by: <i>[Signature]</i>		Date/Time: 12/18/21 1130		Company: ETP
Relinquished by:				Date/Time:		Company:		Received by:		Date/Time:		Company:
Relinquished by:				Date/Time:		Company:		Received by:		Date/Time:		Company:
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks:						



Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-66823-1

Login Number: 66823

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Leakway, Christian

Question	Answer	Comment
The cooler's custody seal is 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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	

Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-66823-1

Login Number: 66823

List Number: 2

Creator: Jodis, Matthew V

List Source: Eurofins Pittsburgh

List Creation: 12/18/21 02:04 PM

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.	True	
Sample custody seals, if present, are intact.	True	
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	



ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-67201-1
Client Project/Site: Mueser , Alexandria

For:
Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
1/10/2022 11:53:05 AM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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Kelly Tessier

Kelly Tessier
Project Manager
1/10/2022 11:53:05 AM

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DRAFT

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
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.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
POS	Positive / Present
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

DRAFT

Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

Job ID: 410-67201-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-67201-1

Receipt

The sample was received on 12/16/2021 6:18 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

GC/MS VOA

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

GC/MS Semi VOA

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

PCBs

Method 8082A: Surrogate recovery for the following sample was outside control limits: PS-04 (0.0-0.5) (410-67201-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: The continuing calibration verification (CCV) associated with batch 410-210587 recovered above the upper control limit for Tetrachloro-m-xylene. PS-04 (0.0-0.5) (410-67201-1).

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

Pesticides

Method 8081B: The continuing calibration verification (CCV) associated with batch 410-210430 recovered above the upper control limit for p,p'-DDD, p,p'-DDE, p,p'-DDT, and Methoxychlor. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. PS-04 (0.0-0.5) (410-67201-1).

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

Metals

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

General Chemistry

Method Lloyd_Kahn_Mod: Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis. PS-04 (0.0-0.5) (410-67201-1), (180-131375-A-1), (180-131375-A-1 MS) and (180-131375-B-1 MSD)

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

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

Client Sample ID: PS-04 (0.0-0.5)

Lab Sample ID: 410-67201-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	210		64	19	ug/Kg	1	*	8260C	Total/NA
2-Butanone	50		32	6.4	ug/Kg	1	*	8260C	Total/NA
2-Methylnaphthalene	130		37	11	ug/Kg	1	*	8270D	Total/NA
Acenaphthene	39		37	7.5	ug/Kg	1	*	8270D	Total/NA
Acenaphthylene	100		37	9.0	ug/Kg	1	*	8270D	Total/NA
Anthracene	61		37	7.5	ug/Kg	1	*	8270D	Total/NA
Benzaldehyde	87	J	370	75	ug/Kg	1	*	8270D	Total/NA
Benzo[a]anthracene	140		37	7.5	ug/Kg	1	*	8270D	Total/NA
Benzo[a]pyrene	180		37	7.5	ug/Kg	1	*	8270D	Total/NA
Benzo[b]fluoranthene	180		37	7.5	ug/Kg	1	*	8270D	Total/NA
Benzo[g,h,i]perylene	130		37	7.5	ug/Kg	1	*	8270D	Total/NA
Benzo[k]fluoranthene	88		37	7.5	ug/Kg	1	*	8270D	Total/NA
Chrysene	210		37	7.5	ug/Kg	1	*	8270D	Total/NA
Fluoranthene	280		37	7.5	ug/Kg	1	*	8270D	Total/NA
Fluorene	55		37	7.5	ug/Kg	1	*	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	120		37	9.0	ug/Kg	1	*	8270D	Total/NA
Naphthalene	72		37	15	ug/Kg	1	*	8270D	Total/NA
Phenanthrene	160		37	9.0	ug/Kg	1	*	8270D	Total/NA
Pyrene	290		37	7.5	ug/Kg	1	*	8270D	Total/NA
Aluminum	25000		32	17	mg/Kg	1	*	6010D	Total/NA
Arsenic	10		4.8	2.2	mg/Kg	1	*	6010D	Total/NA
Barium	180		0.80	0.24	mg/Kg	1	*	6010D	Total/NA
Beryllium	1.4		0.80	0.16	mg/Kg	1	*	6010D	Total/NA
Cadmium	0.45	J	0.80	0.16	mg/Kg	1	*	6010D	Total/NA
Calcium	6700	B	80	19	mg/Kg	1	*	6010D	Total/NA
Chromium	37		2.4	0.29	mg/Kg	1	*	6010D	Total/NA
Cobalt	21		0.80	0.23	mg/Kg	1	*	6010D	Total/NA
Copper	50		3.2	1.2	mg/Kg	1	*	6010D	Total/NA
Iron	35000		32	9.9	mg/Kg	1	*	6010D	Total/NA
Lead	38		2.4	0.96	mg/Kg	1	*	6010D	Total/NA
Magnesium	4400	^5-	16	6.4	mg/Kg	1	*	6010D	Total/NA
Manganese	960		1.6	0.83	mg/Kg	1	*	6010D	Total/NA
Nickel	35		1.6	0.42	mg/Kg	1	*	6010D	Total/NA
Potassium	2600		80	33	mg/Kg	1	*	6010D	Total/NA
Selenium	4.6	J	8.0	2.4	mg/Kg	1	*	6010D	Total/NA
Sodium	130	J	160	74	mg/Kg	1	*	6010D	Total/NA
Zinc	170		3.2	1.6	mg/Kg	1	*	6010D	Total/NA
Vanadium	50		1.6	0.69	mg/Kg	1	*	6010D	Total/NA
Mercury	0.18		0.13	0.054	mg/Kg	1	*	7471B	Total/NA
Total Organic Carbon - Duplicates	37000	cn	2300	2200	mg/Kg	1	*	EPA-Lloyd Kahn	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

Client Sample ID: PS-04 (0.0-0.5)

Lab Sample ID: 410-67201-1

Date Collected: 12/15/21 14:35

Matrix: Solid

Date Received: 12/16/21 18:18

Percent Solids: 44.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	1.3	U	16	1.3	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
trans-1,3-Dichloropropene	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Ethylbenzene	1.3	U	16	1.3	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Styrene	1.3	U	16	1.3	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
1,4-Dichlorobenzene	1.3	U	16	1.3	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
1,2-Dibromoethane	1.3	U	16	1.3	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
1,2-Dichloroethane	1.9	U	16	1.9	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
4-Methyl-2-pentanone	3.2	U	32	3.2	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Methylcyclohexane	1.9	U	16	1.9	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Toluene	1.9	U	16	1.9	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Chlorobenzene	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Cyclohexane	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
1,2,4-Trichlorobenzene	16	U	32	16	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
1,4-Dioxane	120	U	800	120	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Dibromochloromethane	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Tetrachloroethene	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
cis-1,2-Dichloroethene	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
trans-1,2-Dichloroethene	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Methyl tertiary butyl ether	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
m&p-Xylene	3.2	U	16	3.2	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
1,3-Dichlorobenzene	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Carbon tetrachloride	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
2-Hexanone	3.2	U	32	3.2	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Acetone	210		64	19	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Chloroform	1.9	U	16	1.9	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Benzene	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
1,1,1-Trichloroethane	1.9	U	16	1.9	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Bromomethane	2.2	U	16	2.2	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Chloromethane	1.9	U	16	1.9	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Bromochloromethane	1.9	U	16	1.9	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Chloroethane	3.2	U	16	3.2	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Vinyl chloride	1.9	U	16	1.9	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Methylene Chloride	6.4	U	16	6.4	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Carbon disulfide	1.9	U	16	1.9	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Bromoform	16	U	32	16	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Bromodichloromethane	1.3	U	16	1.3	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
1,1-Dichloroethane	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
1,1-Dichloroethene	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Trichlorofluoromethane	2.2	U	16	2.2	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Dichlorodifluoromethane	1.9	U	16	1.9	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Freon 113	1.9	U	32	1.9	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
1,2-Dichloropropane	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
2-Butanone	50		32	6.4	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
1,1,2-Trichloroethane	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Trichloroethene	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Methyl acetate	3.2	U**	16	3.2	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
1,1,2,2-Tetrachloroethane	1.3	U	16	1.3	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
1,2,3-Trichlorobenzene	16	U	32	16	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
o-Xylene	1.3	U	16	1.3	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

Client Sample ID: PS-04 (0.0-0.5)

Lab Sample ID: 410-67201-1

Date Collected: 12/15/21 14:35

Matrix: Solid

Date Received: 12/16/21 18:18

Percent Solids: 44.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
1,2-Dibromo-3-Chloropropane	1.6	U	16	1.6	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Isopropylbenzene	1.3	U	16	1.3	ug/Kg	☼	12/16/21 21:44	12/20/21 15:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		54 - 135				12/16/21 21:44	12/20/21 15:17	1
4-Bromofluorobenzene (Surr)	84		50 - 131				12/16/21 21:44	12/20/21 15:17	1
Dibromofluoromethane (Surr)	101		50 - 141				12/16/21 21:44	12/20/21 15:17	1
Toluene-d8 (Surr)	108		52 - 141				12/16/21 21:44	12/20/21 15:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	37	U	82	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
1,2,4,5-Tetrachlorobenzene	37	U	82	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
2,2'-oxybis[1-chloropropane]	45	U	97	45	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
2,3,4,6-Tetrachlorophenol	150	U	370	150	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
2,4,5-Trichlorophenol	37	U	82	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
2,4,6-Trichlorophenol	37	U	82	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
2,4-Dichlorophenol	45	U	97	45	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
2,4-Dimethylphenol	37	U	82	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
2,4-Dinitrophenol	370	U	2200	370	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
2,4-Dinitrotoluene	75	U	370	75	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
2,6-Dinitrotoluene	37	U	82	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
2-Chloronaphthalene	30	U	75	30	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
2-Chlorophenol	37	U	82	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
2-Methylnaphthalene	130		37	11	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
2-Methylphenol	45	U	110	45	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
2-Nitroaniline	37	U	110	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
2-Nitrophenol	45	U	110	45	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
3,3'-Dichlorobenzidine	75	U	370	75	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
3-Nitroaniline	75	U	370	75	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
4,6-Dinitro-2-methylphenol	370	U	1100	370	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
4-Bromophenyl-phenylether	37	U	82	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
4-Chloro-3-methylphenol	45	U	110	45	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
4-Methylphenol	37	U	110	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
4-Nitroaniline	75	U	370	75	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
4-Nitrophenol	370	U	1100	370	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Acenaphthene	39		37	7.5	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Acenaphthylene	100		37	9.0	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Acetophenone	37	U	110	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Anthracene	61		37	7.5	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Atrazine	150	U	370	150	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Benzaldehyde	87	J	370	75	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Benzo[a]anthracene	140		37	7.5	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Benzo[a]pyrene	180		37	7.5	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Benzo[b]fluoranthene	180		37	7.5	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Benzo[g,h,i]perylene	130		37	7.5	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Benzo[k]fluoranthene	88		37	7.5	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Bis(2-chloroethoxy)methane	37	U	82	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Bis(2-chloroethyl)ether	37	U	82	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

Client Sample ID: PS-04 (0.0-0.5)

Lab Sample ID: 410-67201-1

Date Collected: 12/15/21 14:35

Matrix: Solid

Date Received: 12/16/21 18:18

Percent Solids: 44.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	150	U	370	150	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Butylbenzylphthalate	150	U	370	150	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Caprolactam	75	U	370	75	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Carbazole	37	U	82	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Chrysene	210		37	7.5	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Di-n-butyl phthalate	150	U	370	150	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Di-n-octyl phthalate	150	U	370	150	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Dibenz(a,h)anthracene	15	U	37	15	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Dibenzofuran	37	U	82	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Diethyl phthalate	150	U	370	150	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Dimethyl phthalate	150	U	370	150	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Fluoranthene	280		37	7.5	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Fluorene	55		37	7.5	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Hexachlorobenzene	15	U	37	15	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Hexachlorobutadiene	45	U	110	45	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Hexachlorocyclopentadiene	370	U	1100	370	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Hexachloroethane	75	U	370	75	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Indeno[1,2,3-cd]pyrene	120		37	9.0	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Isophorone	37	U	150	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
N-Nitrosodi-n-propylamine	75	U	150	75	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
N-Nitrosodiphenylamine	37	U	82	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Naphthalene	72		37	15	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Nitrobenzene	37	U	82	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Phenanthrene	160		37	9.0	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Phenol	37	U	82	37	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Pyrene	290		37	7.5	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1
Pentachlorophenol	150	U	370	150	ug/Kg	☼	12/29/21 16:08	01/03/22 17:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	95		45 - 108	12/29/21 16:08	01/03/22 17:53	1
Nitrobenzene-d5 (Surr)	80		32 - 97	12/29/21 16:08	01/03/22 17:53	1
2-Fluorophenol (Surr)	73		26 - 96	12/29/21 16:08	01/03/22 17:53	1
2-Fluorobiphenyl (Surr)	78		39 - 100	12/29/21 16:08	01/03/22 17:53	1
2,4,6-Tribromophenol (Surr)	83		13 - 121	12/29/21 16:08	01/03/22 17:53	1
Phenol-d5 (Surr)	78		27 - 104	12/29/21 16:08	01/03/22 17:53	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	7.7	U cn	38	7.7	ug/Kg	☼	12/29/21 16:43	12/30/21 09:01	20
alpha-BHC (1C)	7.7	U cn	38	7.7	ug/Kg	☼	12/29/21 16:43	12/30/21 09:01	20
alpha-Chlordane (1C)	7.7	U cn	38	7.7	ug/Kg	☼	12/29/21 16:43	12/30/21 09:01	20
beta-BHC (1C)	20	U cn	45	20	ug/Kg	☼	12/29/21 16:43	12/30/21 09:01	20
delta-BHC (1C)	20	U cn	45	20	ug/Kg	☼	12/29/21 16:43	12/30/21 09:01	20
Dieldrin (1C)	15	U cn	77	15	ug/Kg	☼	12/29/21 16:43	12/30/21 09:01	20
Endosulfan I (1C)	10	U cn	38	10	ug/Kg	☼	12/29/21 16:43	12/30/21 09:01	20
Endosulfan II (1C)	50	U cn	100	50	ug/Kg	☼	12/29/21 16:43	12/30/21 09:01	20
Endosulfan sulfate (1C)	15	U cn	77	15	ug/Kg	☼	12/29/21 16:43	12/30/21 09:01	20
Endrin (1C)	31	U cn	77	31	ug/Kg	☼	12/29/21 16:43	12/30/21 09:01	20
Endrin aldehyde (1C)	15	U cn	77	15	ug/Kg	☼	12/29/21 16:43	12/30/21 09:01	20
Endrin ketone (1C)	27	U cn	91	27	ug/Kg	☼	12/29/21 16:43	12/30/21 09:01	20

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

Client Sample ID: PS-04 (0.0-0.5)

Lab Sample ID: 410-67201-1

Date Collected: 12/15/21 14:35

Matrix: Solid

Date Received: 12/16/21 18:18

Percent Solids: 44.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane) (1C)	9.5	U cn	38	9.5	ug/Kg	✳	12/29/21 16:43	12/30/21 09:01	20
gamma-Chlordane (1C)	11	U cn	38	11	ug/Kg	✳	12/29/21 16:43	12/30/21 09:01	20
Heptachlor (2C)	14	U cn	38	14	ug/Kg	✳	12/29/21 16:43	12/30/21 09:01	20
Heptachlor epoxide (1C)	7.7	U cn	38	7.7	ug/Kg	✳	12/29/21 16:43	12/30/21 09:01	20
Methoxychlor (1C)	82	U cn	300	82	ug/Kg	✳	12/29/21 16:43	12/30/21 09:01	20
Toxaphene (1C)	640	U cn	1500	640	ug/Kg	✳	12/29/21 16:43	12/30/21 09:01	20
p,p'-DDD (1C)	15	U cn	77	15	ug/Kg	✳	12/29/21 16:43	12/30/21 09:01	20
p,p'-DDE (1C)	15	U cn	77	15	ug/Kg	✳	12/29/21 16:43	12/30/21 09:01	20
p,p'-DDT (1C)	36	U cn	77	36	ug/Kg	✳	12/29/21 16:43	12/30/21 09:01	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	61	cn	54 - 143	12/29/21 16:43	12/30/21 09:01	20
DCB Decachlorobiphenyl (Surr) (2C)	59	cn	54 - 143	12/29/21 16:43	12/30/21 09:01	20
Tetrachloro-m-xylene (Surr) (1C)	20	cn	20 - 131	12/29/21 16:43	12/30/21 09:01	20
Tetrachloro-m-xylene (Surr) (2C)	28	cn	20 - 131	12/29/21 16:43	12/30/21 09:01	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	12	U cn	39	12	ug/Kg	✳	12/29/21 17:12	12/30/21 15:23	1
PCB-1221 (1C)	12	U cn	39	12	ug/Kg	✳	12/29/21 17:12	12/30/21 15:23	1
PCB-1232 (1C)	12	U cn	39	12	ug/Kg	✳	12/29/21 17:12	12/30/21 15:23	1
PCB-1242 (1C)	12	U cn	39	12	ug/Kg	✳	12/29/21 17:12	12/30/21 15:23	1
PCB-1248 (1C)	12	U cn	39	12	ug/Kg	✳	12/29/21 17:12	12/30/21 15:23	1
PCB-1254 (1C)	15	U cn	39	15	ug/Kg	✳	12/29/21 17:12	12/30/21 15:23	1
PCB-1260 (1C)	15	U cn	39	15	ug/Kg	✳	12/29/21 17:12	12/30/21 15:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	43	S1- cn	45 - 143	12/29/21 17:12	12/30/21 15:23	1
DCB Decachlorobiphenyl (Surr) (2C)	43	S1- cn	45 - 143	12/29/21 17:12	12/30/21 15:23	1
Tetrachloro-m-xylene (1C)	42	S1- cn	53 - 140	12/29/21 17:12	12/30/21 15:23	1
Tetrachloro-m-xylene (2C)	34	S1- cn	53 - 140	12/29/21 17:12	12/30/21 15:23	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.7	U	8.0	2.7	mg/Kg	✳	12/18/21 09:08	12/28/21 20:12	1
Aluminum	25000		32	17	mg/Kg	✳	12/18/21 09:08	12/29/21 20:18	1
Arsenic	10		4.8	2.2	mg/Kg	✳	12/18/21 09:08	12/28/21 20:12	1
Barium	180		0.80	0.24	mg/Kg	✳	12/18/21 09:08	12/28/21 20:12	1
Beryllium	1.4		0.80	0.16	mg/Kg	✳	12/18/21 09:08	12/28/21 20:12	1
Cadmium	0.45	J	0.80	0.16	mg/Kg	✳	12/18/21 09:08	12/28/21 20:12	1
Calcium	6700	B	80	19	mg/Kg	✳	12/18/21 09:08	12/28/21 20:12	1
Chromium	37		2.4	0.29	mg/Kg	✳	12/18/21 09:08	12/28/21 20:12	1
Cobalt	21		0.80	0.23	mg/Kg	✳	12/18/21 09:08	12/28/21 20:12	1
Copper	50		3.2	1.2	mg/Kg	✳	12/18/21 09:08	12/28/21 20:12	1
Iron	35000		32	9.9	mg/Kg	✳	12/18/21 09:08	12/28/21 20:12	1
Lead	38		2.4	0.96	mg/Kg	✳	12/18/21 09:08	12/28/21 20:12	1
Magnesium	4400	^5-	16	6.4	mg/Kg	✳	12/18/21 09:08	12/28/21 20:12	1
Manganese	960		1.6	0.83	mg/Kg	✳	12/18/21 09:08	12/28/21 20:12	1
Nickel	35		1.6	0.42	mg/Kg	✳	12/18/21 09:08	12/28/21 20:12	1
Potassium	2600		80	33	mg/Kg	✳	12/18/21 09:08	12/28/21 20:12	1

Client Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

Client Sample ID: PS-04 (0.0-0.5)

Lab Sample ID: 410-67201-1

Date Collected: 12/15/21 14:35

Matrix: Solid

Date Received: 12/16/21 18:18

Percent Solids: 44.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	4.6	J	8.0	2.4	mg/Kg	☼	12/18/21 09:08	12/28/21 20:12	1
Silver	0.64	U ^5-	1.6	0.64	mg/Kg	☼	12/18/21 09:08	12/28/21 20:12	1
Sodium	130	J	160	74	mg/Kg	☼	12/18/21 09:08	12/28/21 20:12	1
Thallium	2.1	U ^3+	4.8	2.1	mg/Kg	☼	12/18/21 09:08	12/28/21 20:12	1
Zinc	170		3.2	1.6	mg/Kg	☼	12/18/21 09:08	12/28/21 20:12	1
Vanadium	50		1.6	0.69	mg/Kg	☼	12/18/21 09:08	12/28/21 20:12	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.18		0.13	0.054	mg/Kg	☼	12/18/21 10:56	12/21/21 11:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	56.0		1.0	1.0	%			12/17/21 11:07	1

General Chemistry

Lab: Eurofins Pittsburgh

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	37000	cn	2300	2200	mg/Kg	☼		12/22/21 22:31	1

DRAFT

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- 14
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Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (54-135)	BFB (50-131)	DBFM (50-141)	TOL (52-141)
410-67201-1	PS-04 (0.0-0.5)	100	84	101	108
LCS 410-207332/4	Lab Control Sample	112	101	104	101
LCSD 410-207332/5	Lab Control Sample Dup	104	100	102	102
MB 410-207332/7	Method Blank	105	98	103	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (45-108)	NBZ (32-97)	2FP (26-96)	FBP (39-100)	TBP (13-121)	PHL (27-104)
410-67201-1	PS-04 (0.0-0.5)	95	80	73	78	83	78
LCS 410-210250/2-A	Lab Control Sample	104	84	74	89	89	77
MB 410-210250/1-A	Method Blank	110 S1+	85	74	88	91	74

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (54-143)	DCB2 (54-143)	TCX1 (20-131)	TCX2 (20-131)
410-67201-1	PS-04 (0.0-0.5)	61 cn	59 cn	20 cn	28 cn
LCS 410-210270/2-A	Lab Control Sample	103	92	39	37
MB 410-210270/1-A	Method Blank	92	88	28	29

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (45-143)	DCB2 (45-143)	TCX1 (53-140)	TCX2 (53-140)
410-67201-1	PS-04 (0.0-0.5)	43 S1- cn	43 S1- cn	42 S1- cn	34 S1- cn
LCS 410-210276/2-A	Lab Control Sample		101		106
MB 410-210276/1-A	Method Blank		99		102

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

DRAFT

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QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

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

Lab Sample ID: MB 410-207332/7

Matrix: Solid

Analysis Batch: 207332

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	0.40	U	5.0	0.40	ug/Kg			12/20/21 11:35	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
Ethylbenzene	0.40	U	5.0	0.40	ug/Kg			12/20/21 11:35	1
Styrene	0.40	U	5.0	0.40	ug/Kg			12/20/21 11:35	1
1,4-Dichlorobenzene	0.40	U	5.0	0.40	ug/Kg			12/20/21 11:35	1
1,2-Dibromoethane	0.40	U	5.0	0.40	ug/Kg			12/20/21 11:35	1
1,2-Dichloroethane	0.60	U	5.0	0.60	ug/Kg			12/20/21 11:35	1
4-Methyl-2-pentanone	1.0	U	10	1.0	ug/Kg			12/20/21 11:35	1
Methylcyclohexane	0.60	U	5.0	0.60	ug/Kg			12/20/21 11:35	1
Toluene	0.60	U	5.0	0.60	ug/Kg			12/20/21 11:35	1
Chlorobenzene	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
Cyclohexane	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
1,2,4-Trichlorobenzene	5.0	U	10	5.0	ug/Kg			12/20/21 11:35	1
1,4-Dioxane	37	U	250	37	ug/Kg			12/20/21 11:35	1
Dibromochloromethane	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
Tetrachloroethene	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
cis-1,2-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
trans-1,2-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
Methyl tertiary butyl ether	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
m&p-Xylene	1.0	U	5.0	1.0	ug/Kg			12/20/21 11:35	1
1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
Carbon tetrachloride	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
2-Hexanone	1.0	U	10	1.0	ug/Kg			12/20/21 11:35	1
Acetone	6.0	U	20	6.0	ug/Kg			12/20/21 11:35	1
Chloroform	0.60	U	5.0	0.60	ug/Kg			12/20/21 11:35	1
Benzene	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
1,1,1-Trichloroethane	0.60	U	5.0	0.60	ug/Kg			12/20/21 11:35	1
Bromomethane	0.70	U	5.0	0.70	ug/Kg			12/20/21 11:35	1
Chloromethane	0.60	U	5.0	0.60	ug/Kg			12/20/21 11:35	1
Bromochloromethane	0.60	U	5.0	0.60	ug/Kg			12/20/21 11:35	1
Chloroethane	1.0	U	5.0	1.0	ug/Kg			12/20/21 11:35	1
Vinyl chloride	0.60	U	5.0	0.60	ug/Kg			12/20/21 11:35	1
Methylene Chloride	2.0	U	5.0	2.0	ug/Kg			12/20/21 11:35	1
Carbon disulfide	0.60	U	5.0	0.60	ug/Kg			12/20/21 11:35	1
Bromoform	5.0	U	10	5.0	ug/Kg			12/20/21 11:35	1
Bromodichloromethane	0.40	U	5.0	0.40	ug/Kg			12/20/21 11:35	1
1,1-Dichloroethane	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
1,1-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
Trichlorofluoromethane	0.70	U	5.0	0.70	ug/Kg			12/20/21 11:35	1
Dichlorodifluoromethane	0.60	U	5.0	0.60	ug/Kg			12/20/21 11:35	1
Freon 113	0.60	U	10	0.60	ug/Kg			12/20/21 11:35	1
1,2-Dichloropropane	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
2-Butanone	2.0	U	10	2.0	ug/Kg			12/20/21 11:35	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
Trichloroethene	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
Methyl acetate	1.0	U	5.0	1.0	ug/Kg			12/20/21 11:35	1
1,1,2,2-Tetrachloroethane	0.40	U	5.0	0.40	ug/Kg			12/20/21 11:35	1
1,2,3-Trichlorobenzene	5.0	U	10	5.0	ug/Kg			12/20/21 11:35	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

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

Lab Sample ID: MB 410-207332/7

Matrix: Solid

Analysis Batch: 207332

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	0.40	U	5.0	0.40	ug/Kg			12/20/21 11:35	1
1,2-Dichlorobenzene	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
1,2-Dibromo-3-Chloropropane	0.50	U	5.0	0.50	ug/Kg			12/20/21 11:35	1
Isopropylbenzene	0.40	U	5.0	0.40	ug/Kg			12/20/21 11:35	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	105		54 - 135		12/20/21 11:35	1
4-Bromofluorobenzene (Surr)	98		50 - 131		12/20/21 11:35	1
Dibromofluoromethane (Surr)	103		50 - 141		12/20/21 11:35	1
Toluene-d8 (Surr)	100		52 - 141		12/20/21 11:35	1

Lab Sample ID: LCS 410-207332/4

Matrix: Solid

Analysis Batch: 207332

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
cis-1,3-Dichloropropene	20.0	21.5		ug/Kg		108	66 - 120
trans-1,3-Dichloropropene	20.0	22.0		ug/Kg		110	68 - 122
Ethylbenzene	20.0	20.9		ug/Kg		104	78 - 120
Styrene	20.0	20.3		ug/Kg		101	76 - 120
1,4-Dichlorobenzene	20.0	20.6		ug/Kg		103	80 - 120
1,2-Dibromoethane	20.0	21.6		ug/Kg		108	76 - 120
1,2-Dichloroethane	20.0	21.5		ug/Kg		107	71 - 128
4-Methyl-2-pentanone	250	298		ug/Kg		119	67 - 128
Methylcyclohexane	20.0	22.2		ug/Kg		111	61 - 124
Toluene	20.0	20.6		ug/Kg		103	80 - 120
Chlorobenzene	20.0	20.7		ug/Kg		104	80 - 120
Cyclohexane	20.0	22.9		ug/Kg		114	58 - 126
1,2,4-Trichlorobenzene	20.0	20.7		ug/Kg		103	56 - 130
1,4-Dioxane	500	503		ug/Kg		101	62 - 131
Dibromochloromethane	20.0	21.1		ug/Kg		105	69 - 125
Tetrachloroethene	20.0	20.0		ug/Kg		100	73 - 120
cis-1,2-Dichloroethene	20.0	22.2		ug/Kg		111	80 - 125
trans-1,2-Dichloroethene	20.0	20.5		ug/Kg		102	80 - 126
Methyl tertiary butyl ether	20.0	23.4		ug/Kg		117	72 - 120
m&p-Xylene	40.0	41.6		ug/Kg		104	80 - 120
1,3-Dichlorobenzene	20.0	20.2		ug/Kg		101	75 - 120
Carbon tetrachloride	20.0	20.5		ug/Kg		103	64 - 134
2-Hexanone	250	276		ug/Kg		110	54 - 140
Acetone	250	152		ug/Kg		61	41 - 150
Chloroform	20.0	20.7		ug/Kg		104	80 - 120
Benzene	20.0	21.6		ug/Kg		108	80 - 120
1,1,1-Trichloroethane	20.0	20.0		ug/Kg		100	69 - 123
Bromomethane	20.0	20.2		ug/Kg		101	45 - 140
Chloromethane	20.0	21.4		ug/Kg		107	56 - 120
Bromochloromethane	20.0	22.0		ug/Kg		110	72 - 124
Chloroethane	20.0	20.5		ug/Kg		103	43 - 135
Vinyl chloride	20.0	21.2		ug/Kg		106	52 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

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

Lab Sample ID: LCS 410-207332/4

Matrix: Solid

Analysis Batch: 207332

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	21.9		ug/Kg		109	76 - 122
Carbon disulfide	20.0	23.3		ug/Kg		116	64 - 133
Bromoform	20.0	21.3		ug/Kg		107	51 - 127
Bromodichloromethane	20.0	21.6		ug/Kg		108	70 - 120
1,1-Dichloroethane	20.0	21.4		ug/Kg		107	79 - 120
1,1-Dichloroethene	20.0	20.8		ug/Kg		104	73 - 129
Trichlorofluoromethane	20.0	19.3		ug/Kg		97	55 - 134
Dichlorodifluoromethane	20.0	22.8		ug/Kg		114	21 - 127
Freon 113	20.0	23.6		ug/Kg		118	64 - 135
1,2-Dichloropropane	20.0	22.2		ug/Kg		111	80 - 120
2-Butanone	250	191		ug/Kg		77	57 - 128
1,1,2-Trichloroethane	20.0	22.3		ug/Kg		111	80 - 120
Trichloroethene	20.0	21.0		ug/Kg		105	80 - 120
Methyl acetate	20.0	27.2	*+	ug/Kg		136	67 - 128
1,1,1,2-Tetrachloroethane	20.0	22.9		ug/Kg		115	69 - 125
1,2,3-Trichlorobenzene	20.0	21.4		ug/Kg		107	57 - 131
o-Xylene	20.0	20.4		ug/Kg		102	75 - 120
1,2-Dichlorobenzene	20.0	20.4		ug/Kg		102	76 - 120
1,2-Dibromo-3-Chloropropane	20.0	20.7		ug/Kg		103	48 - 134
Isopropylbenzene	20.0	20.7		ug/Kg		103	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		54 - 135
4-Bromofluorobenzene (Surr)	101		50 - 131
Dibromofluoromethane (Surr)	104		50 - 141
Toluene-d8 (Surr)	101		52 - 141

Lab Sample ID: LCSD 410-207332/5

Matrix: Solid

Analysis Batch: 207332

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	20.0	21.2		ug/Kg		106	66 - 120	1	30
trans-1,3-Dichloropropene	20.0	21.8		ug/Kg		109	68 - 122	1	30
Ethylbenzene	20.0	21.1		ug/Kg		105	78 - 120	1	30
Styrene	20.0	20.2		ug/Kg		101	76 - 120	1	30
1,4-Dichlorobenzene	20.0	21.0		ug/Kg		105	80 - 120	2	30
1,2-Dibromoethane	20.0	20.4		ug/Kg		102	76 - 120	6	30
1,2-Dichloroethane	20.0	20.4		ug/Kg		102	71 - 128	5	30
4-Methyl-2-pentanone	250	258		ug/Kg		103	67 - 128	14	30
Methylcyclohexane	20.0	21.7		ug/Kg		109	61 - 124	2	30
Toluene	20.0	20.8		ug/Kg		104	80 - 120	1	30
Chlorobenzene	20.0	20.7		ug/Kg		103	80 - 120	0	30
Cyclohexane	20.0	22.4		ug/Kg		112	58 - 126	2	30
1,2,4-Trichlorobenzene	20.0	20.5		ug/Kg		102	56 - 130	1	30
1,4-Dioxane	500	527		ug/Kg		105	62 - 131	5	30
Dibromochloromethane	20.0	20.8		ug/Kg		104	69 - 125	1	30
Tetrachloroethene	20.0	20.1		ug/Kg		101	73 - 120	1	30

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

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

Lab Sample ID: LCSD 410-207332/5

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 207332

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
		Result	Qualifier				Limits		Limit
cis-1,2-Dichloroethene	20.0	21.8		ug/Kg		109	80 - 125	2	30
trans-1,2-Dichloroethene	20.0	20.4		ug/Kg		102	80 - 126	0	30
Methyl tertiary butyl ether	20.0	21.7		ug/Kg		109	72 - 120	8	30
m&p-Xylene	40.0	42.5		ug/Kg		106	80 - 120	2	30
1,3-Dichlorobenzene	20.0	20.6		ug/Kg		103	75 - 120	2	30
Carbon tetrachloride	20.0	20.2		ug/Kg		101	64 - 134	2	30
2-Hexanone	250	240		ug/Kg		96	54 - 140	14	30
Acetone	250	154		ug/Kg		62	41 - 150	1	30
Chloroform	20.0	20.6		ug/Kg		103	80 - 120	1	30
Benzene	20.0	21.4		ug/Kg		107	80 - 120	1	30
1,1,1-Trichloroethane	20.0	19.9		ug/Kg		99	69 - 123	1	30
Bromomethane	20.0	19.5		ug/Kg		98	45 - 140	3	30
Chloromethane	20.0	20.5		ug/Kg		103	56 - 120	4	30
Bromochloromethane	20.0	21.4		ug/Kg		107	72 - 124	3	30
Chloroethane	20.0	20.4		ug/Kg		102	43 - 135	1	30
Vinyl chloride	20.0	20.4		ug/Kg		102	52 - 120	4	30
Methylene Chloride	20.0	21.5		ug/Kg		108	76 - 122	2	30
Carbon disulfide	20.0	23.0		ug/Kg		115	64 - 133	1	30
Bromoform	20.0	20.4		ug/Kg		102	51 - 127	4	30
Bromodichloromethane	20.0	21.3		ug/Kg		107	70 - 120	1	30
1,1-Dichloroethane	20.0	21.3		ug/Kg		107	79 - 120	0	30
1,1-Dichloroethene	20.0	20.7		ug/Kg		104	73 - 129	0	30
Trichlorofluoromethane	20.0	19.5		ug/Kg		97	55 - 134	1	30
Dichlorodifluoromethane	20.0	22.0		ug/Kg		110	21 - 127	4	30
Freon 113	20.0	23.7		ug/Kg		118	64 - 135	0	30
1,2-Dichloropropane	20.0	21.8		ug/Kg		109	80 - 120	2	30
2-Butanone	250	200		ug/Kg		80	57 - 128	4	30
1,1,2-Trichloroethane	20.0	21.6		ug/Kg		108	80 - 120	3	30
Trichloroethene	20.0	20.2		ug/Kg		101	80 - 120	4	30
Methyl acetate	20.0	22.1		ug/Kg		111	67 - 128	21	30
1,1,2,2-Tetrachloroethane	20.0	21.7		ug/Kg		108	69 - 125	6	30
1,2,3-Trichlorobenzene	20.0	20.7		ug/Kg		103	57 - 131	3	30
o-Xylene	20.0	20.6		ug/Kg		103	75 - 120	1	30
1,2-Dichlorobenzene	20.0	20.6		ug/Kg		103	76 - 120	1	30
1,2-Dibromo-3-Chloropropane	20.0	18.7		ug/Kg		94	48 - 134	10	30
Isopropylbenzene	20.0	21.0		ug/Kg		105	77 - 120	2	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	104		54 - 135
4-Bromofluorobenzene (Surr)	100		50 - 131
Dibromofluoromethane (Surr)	102		50 - 141
Toluene-d8 (Surr)	102		52 - 141

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

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

Lab Sample ID: MB 410-210250/1-A
Matrix: Solid
Analysis Batch: 211013

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 210250

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1'-Biphenyl	17	U	37	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
1,2,4,5-Tetrachlorobenzene	17	U	37	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
2,2'-oxybis[1-chloropropane]	20	U	43	20	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
2,3,4,6-Tetrachlorophenol	67	U	170	67	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
2,4,5-Trichlorophenol	17	U	37	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
2,4,6-Trichlorophenol	17	U	37	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
2,4-Dichlorophenol	20	U	43	20	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
2,4-Dimethylphenol	17	U	37	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
2,4-Dinitrophenol	170	U	1000	170	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
2,4-Dinitrotoluene	33	U	170	33	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
2,6-Dinitrotoluene	17	U	37	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
2-Chloronaphthalene	13	U	33	13	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
2-Chlorophenol	17	U	37	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
2-Methylnaphthalene	5.0	U	17	5.0	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
2-Methylphenol	20	U	50	20	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
2-Nitroaniline	17	U	50	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
2-Nitrophenol	20	U	50	20	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
3,3'-Dichlorobenzidine	33	U	170	33	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
3-Nitroaniline	33	U	170	33	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
4,6-Dinitro-2-methylphenol	170	U	500	170	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
4-Bromophenyl-phenylether	17	U	37	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
4-Chloro-3-methylphenol	20	U	50	20	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
4-Methylphenol	17	U	50	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
4-Nitroaniline	33	U	170	33	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
4-Nitrophenol	170	U	500	170	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Acenaphthene	3.3	U	17	3.3	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Acenaphthylene	4.0	U	17	4.0	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Acetophenone	17	U	50	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Anthracene	3.3	U	17	3.3	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Atrazine	67	U	170	67	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Benzaldehyde	33	U	170	33	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Benzo[a]anthracene	3.3	U	17	3.3	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Benzo[a]pyrene	3.3	U	17	3.3	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Benzo[b]fluoranthene	3.3	U	17	3.3	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Benzo[g,h,i]perylene	3.3	U	17	3.3	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Benzo[k]fluoranthene	3.3	U	17	3.3	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Bis(2-chloroethoxy)methane	17	U	37	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Bis(2-chloroethyl)ether	17	U	37	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Bis(2-ethylhexyl) phthalate	67	U	170	67	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Butylbenzylphthalate	67	U	170	67	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Caprolactam	33	U	170	33	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Carbazole	17	U	37	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Chrysene	3.3	U	17	3.3	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Di-n-butyl phthalate	67	U	170	67	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Di-n-octyl phthalate	67	U	170	67	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Dibenz(a,h)anthracene	6.7	U	17	6.7	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Dibenzofuran	17	U	37	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Diethyl phthalate	67	U	170	67	ug/Kg		12/29/21 16:08	01/03/22 09:58	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

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

Lab Sample ID: MB 410-210250/1-A

Matrix: Solid

Analysis Batch: 211013

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 210250

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dimethyl phthalate	67	U	170	67	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Fluoranthene	3.3	U	17	3.3	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Fluorene	3.3	U	17	3.3	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Hexachlorobenzene	6.7	U	17	6.7	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Hexachlorobutadiene	20	U	50	20	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Hexachlorocyclopentadiene	170	U	500	170	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Hexachloroethane	33	U	170	33	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Indeno[1,2,3-cd]pyrene	4.0	U	17	4.0	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Isophorone	17	U	67	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
N-Nitrosodi-n-propylamine	33	U	67	33	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
N-Nitrosodiphenylamine	17	U	37	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Naphthalene	6.7	U	17	6.7	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Nitrobenzene	17	U	37	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Phenanthrene	4.0	U	17	4.0	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Phenol	17	U	37	17	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Pyrene	3.3	U	17	3.3	ug/Kg		12/29/21 16:08	01/03/22 09:58	1
Pentachlorophenol	67	U	170	67	ug/Kg		12/29/21 16:08	01/03/22 09:58	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
p-Terphenyl-d14 (Surr)	110	S1+	45 - 108	12/29/21 16:08	01/03/22 09:58	1
Nitrobenzene-d5 (Surr)	85		32 - 97	12/29/21 16:08	01/03/22 09:58	1
2-Fluorophenol (Surr)	74		26 - 96	12/29/21 16:08	01/03/22 09:58	1
2-Fluorobiphenyl (Surr)	88		39 - 100	12/29/21 16:08	01/03/22 09:58	1
2,4,6-Tribromophenol (Surr)	91		13 - 121	12/29/21 16:08	01/03/22 09:58	1
Phenol-d5 (Surr)	74		27 - 104	12/29/21 16:08	01/03/22 09:58	1

Lab Sample ID: LCS 410-210250/2-A

Matrix: Solid

Analysis Batch: 211013

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 210250

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	1670	1660		ug/Kg		99	60 - 120
2,2'-oxybis[1-chloropropane]	1670	1400		ug/Kg		84	48 - 120
2,3,4,6-Tetrachlorophenol	1670	1370		ug/Kg		82	59 - 120
2,4,5-Trichlorophenol	1670	1650		ug/Kg		99	61 - 120
2,4,6-Trichlorophenol	1670	1520		ug/Kg		91	59 - 120
2,4-Dichlorophenol	1670	1600		ug/Kg		96	62 - 120
2,4-Dimethylphenol	1670	1690		ug/Kg		101	65 - 120
2,4-Dinitrophenol	3330	3060		ug/Kg		92	44 - 120
2,4-Dinitrotoluene	1670	1720		ug/Kg		103	68 - 120
2,6-Dinitrotoluene	1670	1660		ug/Kg		100	67 - 120
2-Chloronaphthalene	1670	1510		ug/Kg		91	61 - 120
2-Chlorophenol	1670	1380		ug/Kg		83	59 - 120
2-Methylnaphthalene	1670	1710		ug/Kg		102	63 - 120
2-Methylphenol	1670	1290		ug/Kg		77	63 - 120
2-Nitroaniline	1670	1650		ug/Kg		99	64 - 120
2-Nitrophenol	1670	1470		ug/Kg		88	55 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

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

Lab Sample ID: LCS 410-210250/2-A

Matrix: Solid

Analysis Batch: 211013

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 210250

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3,3'-Dichlorobenzidine	3330	2430		ug/Kg		73	19 - 120
3-Nitroaniline	1670	1270		ug/Kg		76	31 - 120
4,6-Dinitro-2-methylphenol	3330	3950		ug/Kg		118	59 - 120
4-Bromophenyl-phenylether	1670	1770		ug/Kg		106	65 - 120
4-Chloro-3-methylphenol	1670	1530		ug/Kg		92	67 - 120
4-Methylphenol	1670	1440		ug/Kg		87	56 - 120
4-Nitroaniline	1670	1530		ug/Kg		92	59 - 120
4-Nitrophenol	3330	3760		ug/Kg		113	58 - 120
Acenaphthene	1670	1550		ug/Kg		93	61 - 120
Acenaphthylene	1670	1590		ug/Kg		95	69 - 120
Acetophenone	1670	1320		ug/Kg		79	54 - 120
Anthracene	1670	1690		ug/Kg		102	75 - 120
Atrazine	1670	1690		ug/Kg		101	63 - 127
Benzaldehyde	1670	1220		ug/Kg		73	25 - 120
Benzo[a]anthracene	1670	1610		ug/Kg		97	73 - 120
Benzo[a]pyrene	1670	1700		ug/Kg		102	80 - 123
Benzo[b]fluoranthene	1670	1570		ug/Kg		94	63 - 120
Benzo[g,h,i]perylene	1670	1760		ug/Kg		105	77 - 120
Benzo[k]fluoranthene	1670	1730		ug/Kg		104	68 - 120
Bis(2-chloroethoxy)methane	1670	1570		ug/Kg		94	55 - 120
Bis(2-chloroethyl)ether	1670	1360		ug/Kg		82	49 - 120
Bis(2-ethylhexyl) phthalate	1670	1710		ug/Kg		102	65 - 120
Butylbenzylphthalate	1670	1600		ug/Kg		96	66 - 120
Caprolactam	1670	1650		ug/Kg		99	54 - 120
Carbazole	1670	1620		ug/Kg		97	74 - 120
Chrysene	1670	1730		ug/Kg		104	66 - 120
Di-n-butyl phthalate	1670	1800		ug/Kg		108	65 - 120
Di-n-octyl phthalate	1670	1830		ug/Kg		110	60 - 125
Dibenz(a,h)anthracene	1670	1750		ug/Kg		105	72 - 120
Dibenzofuran	1670	1650		ug/Kg		99	68 - 120
Diethyl phthalate	1670	1750		ug/Kg		105	65 - 120
Dimethyl phthalate	1670	1690		ug/Kg		101	67 - 120
Fluoranthene	1670	1690		ug/Kg		102	71 - 120
Fluorene	1670	1610		ug/Kg		96	68 - 120
Hexachlorobenzene	1670	1770		ug/Kg		106	58 - 120
Hexachlorobutadiene	1670	1570		ug/Kg		94	48 - 120
Hexachlorocyclopentadiene	1670	1350		ug/Kg		81	43 - 120
Hexachloroethane	1670	1330		ug/Kg		80	48 - 120
Indeno[1,2,3-cd]pyrene	1670	1730		ug/Kg		104	71 - 122
Isophorone	1670	1590		ug/Kg		95	62 - 120
N-Nitrosodi-n-propylamine	1670	1540		ug/Kg		92	55 - 120
N-Nitrosodiphenylamine	1420	1420		ug/Kg		100	71 - 120
Naphthalene	1670	1350		ug/Kg		81	60 - 120
Nitrobenzene	1670	1580		ug/Kg		95	56 - 120
Phenanthrene	1670	1660		ug/Kg		100	74 - 120
Phenol	1670	1230		ug/Kg		74	57 - 120
Pyrene	1670	1610		ug/Kg		97	70 - 120
Pentachlorophenol	3330	3100		ug/Kg		93	41 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

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

Lab Sample ID: LCS 410-210250/2-A

Matrix: Solid

Analysis Batch: 211013

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 210250

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
p-Terphenyl-d14 (Surr)	104		45 - 108
Nitrobenzene-d5 (Surr)	84		32 - 97
2-Fluorophenol (Surr)	74		26 - 96
2-Fluorobiphenyl (Surr)	89		39 - 100
2,4,6-Tribromophenol (Surr)	89		13 - 121
Phenol-d5 (Surr)	77		27 - 104

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-210270/1-A

Matrix: Solid

Analysis Batch: 210430

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 210270

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin (1C)	0.17	U	0.83	0.17	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
alpha-BHC (1C)	0.17	U	0.83	0.17	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
alpha-Chlordane (1C)	0.17	U	0.83	0.17	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
beta-BHC (1C)	0.44	U	1.0	0.44	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
delta-BHC (1C)	0.45	U	1.0	0.45	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
Dieldrin (1C)	0.33	U	1.7	0.33	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
Endosulfan I (1C)	0.22	U	0.83	0.22	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
Endosulfan II (1C)	1.1	U	2.3	1.1	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
Endosulfan sulfate (1C)	0.33	U	1.7	0.33	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
Endrin (1C)	0.68	U	1.7	0.68	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
Endrin aldehyde (1C)	0.33	U	1.7	0.33	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
Endrin ketone (1C)	0.60	U	2.0	0.60	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
gamma-BHC (Lindane) (1C)	0.21	U	0.83	0.21	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
gamma-Chlordane (1C)	0.25	U	0.83	0.25	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
Heptachlor (1C)	0.31	U	0.83	0.31	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
Heptachlor epoxide (1C)	0.17	U	0.83	0.17	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
Methoxychlor (1C)	1.8	U	6.7	1.8	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
Toxaphene (1C)	14	U	33	14	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
p,p'-DDD (1C)	0.33	U	1.7	0.33	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
p,p'-DDE (1C)	0.33	U	1.7	0.33	ug/Kg		12/29/21 16:43	12/30/21 07:49	1
p,p'-DDT (1C)	0.79	U	1.7	0.79	ug/Kg		12/29/21 16:43	12/30/21 07:49	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	92		54 - 143	12/29/21 16:43	12/30/21 07:49	1
DCB Decachlorobiphenyl (Surr) (2C)	88		54 - 143	12/29/21 16:43	12/30/21 07:49	1
Tetrachloro-m-xylene (Surr) (1C)	28		20 - 131	12/29/21 16:43	12/30/21 07:49	1
Tetrachloro-m-xylene (Surr) (2C)	29		20 - 131	12/29/21 16:43	12/30/21 07:49	1

Lab Sample ID: LCS 410-210270/2-A

Matrix: Solid

Analysis Batch: 210834

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 210270

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Aldrin (1C)	3.33	2.93		ug/Kg		88	56 - 134

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

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

Lab Sample ID: LCS 410-210270/2-A

Matrix: Solid

Analysis Batch: 210834

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 210270

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha-BHC (1C)	3.33	2.88		ug/Kg		86	55 - 135
beta-BHC (1C)	3.33	2.70		ug/Kg		81	50 - 132
delta-BHC (1C)	3.33	3.00		ug/Kg		90	47 - 141
Dieldrin (1C)	6.67	6.25		ug/Kg		94	54 - 136
Endosulfan I (1C)	3.33	2.89		ug/Kg		87	51 - 124
Endosulfan II (1C)	6.67	6.16		ug/Kg		92	56 - 125
Endosulfan sulfate (1C)	6.67	6.48		ug/Kg		97	56 - 125
Endrin (1C)	6.67	6.19		ug/Kg		93	56 - 129
Endrin aldehyde (2C)	6.67	5.42		ug/Kg		81	46 - 133
Endrin ketone (1C)	6.67	6.54		ug/Kg		98	55 - 128
gamma-BHC (Lindane) (1C)	3.33	2.82		ug/Kg		84	52 - 138
Heptachlor (1C)	3.33	2.81		ug/Kg		84	52 - 139
Heptachlor epoxide (1C)	3.33	2.91		ug/Kg		87	55 - 133
Methoxychlor (2C)	33.3	39.1		ug/Kg		117	54 - 148
p,p'-DDD (1C)	6.67	6.54		ug/Kg		98	59 - 135
p,p'-DDE (2C)	6.67	6.52		ug/Kg		98	57 - 135
p,p'-DDT (1C)	6.67	6.96		ug/Kg		104	53 - 151

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr) (1C)	103		54 - 143
DCB Decachlorobiphenyl (Surr) (2C)	92		54 - 143
Tetrachloro-m-xylene (Surr) (1C)	39		20 - 131
Tetrachloro-m-xylene (Surr) (2C)	37		20 - 131

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

Lab Sample ID: MB 410-210276/1-A

Matrix: Solid

Analysis Batch: 210889

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 210276

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016 (2C)	5.3	U	17	5.3	ug/Kg		12/29/21 17:08	12/31/21 12:23	1
PCB-1221 (2C)	5.3	U	17	5.3	ug/Kg		12/29/21 17:08	12/31/21 12:23	1
PCB-1232 (2C)	5.3	U	17	5.3	ug/Kg		12/29/21 17:08	12/31/21 12:23	1
PCB-1242 (2C)	5.3	U	17	5.3	ug/Kg		12/29/21 17:08	12/31/21 12:23	1
PCB-1248 (2C)	5.3	U	17	5.3	ug/Kg		12/29/21 17:08	12/31/21 12:23	1
PCB-1254 (2C)	6.4	U	17	6.4	ug/Kg		12/29/21 17:08	12/31/21 12:23	1
PCB-1260 (2C)	6.4	U	17	6.4	ug/Kg		12/29/21 17:08	12/31/21 12:23	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (2C)	99		45 - 143	12/29/21 17:08	12/31/21 12:23	1
Tetrachloro-m-xylene (2C)	102		53 - 140	12/29/21 17:08	12/31/21 12:23	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

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

Lab Sample ID: LCS 410-210276/2-A
Matrix: Solid
Analysis Batch: 210889

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 210276

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016 (2C)	167	143		ug/Kg		86	68 - 121
PCB-1260 (2C)	168	175		ug/Kg		104	75 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (2C)	101		45 - 143
Tetrachloro-m-xylene (2C)	106		53 - 140

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-207001/1-A
Matrix: Solid
Analysis Batch: 209849

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 207001

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.7	U	5.0	1.7	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Aluminum	11	U ^3+	20	11	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Arsenic	1.4	U	3.0	1.4	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Barium	0.15	U	0.50	0.15	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Beryllium	0.10	U	0.50	0.10	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Cadmium	0.10	U	0.50	0.10	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Calcium	20.3	J	50	12	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Chromium	0.18	U	1.5	0.18	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Cobalt	0.15	U	0.50	0.15	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Copper	0.77	U	2.0	0.77	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Iron	6.2	U	20	6.2	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Lead	0.60	U	1.5	0.60	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Magnesium	4.0	U ^5-	10	4.0	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Manganese	0.52	U	1.0	0.52	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Nickel	0.26	U	1.0	0.26	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Potassium	20	U	50	20	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Selenium	1.5	U	5.0	1.5	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Silver	0.40	U ^5-	1.0	0.40	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Sodium	46	U	100	46	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Thallium	1.3	U ^3+	3.0	1.3	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Zinc	1.0	U	2.0	1.0	mg/Kg		12/18/21 09:08	12/28/21 19:46	1
Vanadium	0.43	U	1.0	0.43	mg/Kg		12/18/21 09:08	12/28/21 19:46	1

Lab Sample ID: LCS 410-207001/2-A
Matrix: Solid
Analysis Batch: 209849

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 207001

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	10.0	10.3		mg/Kg		103	80 - 120
Arsenic	50.0	51.6		mg/Kg		103	80 - 120
Barium	50.0	51.5		mg/Kg		103	80 - 120
Beryllium	5.00	5.24		mg/Kg		105	80 - 120
Cadmium	5.00	5.26		mg/Kg		105	80 - 120
Calcium	500	504		mg/Kg		101	80 - 120

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

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

Lab Sample ID: LCS 410-207001/2-A

Matrix: Solid

Analysis Batch: 209849

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 207001

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Chromium	50.0	50.9		mg/Kg		102	80 - 120
Cobalt	50.0	52.9		mg/Kg		106	80 - 120
Copper	50.0	52.5		mg/Kg		105	80 - 120
Iron	500	527		mg/Kg		105	80 - 120
Lead	5.00	5.35		mg/Kg		107	80 - 120
Magnesium	500	498	^5-	mg/Kg		100	80 - 120
Manganese	50.0	51.5		mg/Kg		103	80 - 120
Nickel	50.0	53.3		mg/Kg		107	80 - 120
Potassium	500	503		mg/Kg		101	80 - 120
Selenium	10.0	11.0		mg/Kg		110	80 - 120
Silver	5.00	5.15	^5-	mg/Kg		103	80 - 120
Sodium	500	501		mg/Kg		100	80 - 120
Thallium	9.99	8.90	^3+	mg/Kg		89	80 - 120
Zinc	50.0	51.9		mg/Kg		104	80 - 120
Vanadium	50.0	50.2		mg/Kg		100	80 - 120

Lab Sample ID: LCS 410-207001/2-A

Matrix: Solid

Analysis Batch: 210355

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 207001

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Aluminum	500	513		mg/Kg		103	80 - 120

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-207040/1-A

Matrix: Solid

Analysis Batch: 207967

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 207040

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.015	U	0.036	0.015	mg/Kg		12/18/21 10:56	12/21/21 10:55	1

Lab Sample ID: LCS 410-207040/2-A

Matrix: Solid

Analysis Batch: 207967

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 207040

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Mercury	0.100	0.119		mg/Kg		119	80 - 120

Method: EPA-Lloyd Kahn - Organic Carbon, Total (TOC)

Lab Sample ID: MB 180-383330/4

Matrix: Solid

Analysis Batch: 383330

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Organic Carbon - Duplicates	970	U	1000	970	mg/Kg			12/22/21 17:01	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

Method: EPA-Lloyd Kahn - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 180-383330/5
Matrix: Solid
Analysis Batch: 383330

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	38200	38800		mg/Kg		102	75 - 125

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QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

GC/MS VOA

Prep Batch: 206425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67201-1	PS-04 (0.0-0.5)	Total/NA	Solid	5035	

Analysis Batch: 207332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67201-1	PS-04 (0.0-0.5)	Total/NA	Solid	8260C	206425
MB 410-207332/7	Method Blank	Total/NA	Solid	8260C	
LCS 410-207332/4	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-207332/5	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 210250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67201-1	PS-04 (0.0-0.5)	Total/NA	Solid	3546	
MB 410-210250/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-210250/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 211013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67201-1	PS-04 (0.0-0.5)	Total/NA	Solid	8270D	210250
MB 410-210250/1-A	Method Blank	Total/NA	Solid	8270D	210250
LCS 410-210250/2-A	Lab Control Sample	Total/NA	Solid	8270D	210250

GC Semi VOA

Prep Batch: 210270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67201-1	PS-04 (0.0-0.5)	Total/NA	Solid	3546	
MB 410-210270/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-210270/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 210276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67201-1	PS-04 (0.0-0.5)	Total/NA	Solid	3546	
MB 410-210276/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-210276/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 210430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67201-1	PS-04 (0.0-0.5)	Total/NA	Solid	8081B	210270
MB 410-210270/1-A	Method Blank	Total/NA	Solid	8081B	210270

Analysis Batch: 210587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67201-1	PS-04 (0.0-0.5)	Total/NA	Solid	8082A	210276

Analysis Batch: 210834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-210270/2-A	Lab Control Sample	Total/NA	Solid	8081B	210270

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

GC Semi VOA

Analysis Batch: 210889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-210276/1-A	Method Blank	Total/NA	Solid	8082A	210276
LCS 410-210276/2-A	Lab Control Sample	Total/NA	Solid	8082A	210276

Metals

Prep Batch: 207001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67201-1	PS-04 (0.0-0.5)	Total/NA	Solid	3050B	
MB 410-207001/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-207001/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 207040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67201-1	PS-04 (0.0-0.5)	Total/NA	Solid	7471B	
MB 410-207040/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-207040/2-A	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 207967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67201-1	PS-04 (0.0-0.5)	Total/NA	Solid	7471B	207040
MB 410-207040/1-A	Method Blank	Total/NA	Solid	7471B	207040
LCS 410-207040/2-A	Lab Control Sample	Total/NA	Solid	7471B	207040

Analysis Batch: 209849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67201-1	PS-04 (0.0-0.5)	Total/NA	Solid	6010D	207001
MB 410-207001/1-A	Method Blank	Total/NA	Solid	6010D	207001
LCS 410-207001/2-A	Lab Control Sample	Total/NA	Solid	6010D	207001

Analysis Batch: 210355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67201-1	PS-04 (0.0-0.5)	Total/NA	Solid	6010D	207001
LCS 410-207001/2-A	Lab Control Sample	Total/NA	Solid	6010D	207001

General Chemistry

Analysis Batch: 206687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67201-1	PS-04 (0.0-0.5)	Total/NA	Solid	Moisture	

Analysis Batch: 383330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67201-1	PS-04 (0.0-0.5)	Total/NA	Solid	EPA-Lloyd Kahn	
MB 180-383330/4	Method Blank	Total/NA	Solid	EPA-Lloyd Kahn	
LCS 180-383330/5	Lab Control Sample	Total/NA	Solid	EPA-Lloyd Kahn	

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

Client Sample ID: PS-04 (0.0-0.5)

Lab Sample ID: 410-67201-1

Date Collected: 12/15/21 14:35

Matrix: Solid

Date Received: 12/16/21 18:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	206687	12/17/21 11:07	UVJN	ELLE

Client Sample ID: PS-04 (0.0-0.5)

Lab Sample ID: 410-67201-1

Date Collected: 12/15/21 14:35

Matrix: Solid

Date Received: 12/16/21 18:18

Percent Solids: 44.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			206425	12/16/21 21:44	D8NM	ELLE
Total/NA	Analysis	8260C		1	207332	12/20/21 15:17	UCB5	ELLE
Total/NA	Prep	3546			210250	12/29/21 16:08	FTV5	ELLE
Total/NA	Analysis	8270D		1	211013	01/03/22 17:53	DZ6A	ELLE
Total/NA	Prep	3546			210270	12/29/21 16:43	FTV5	ELLE
Total/NA	Analysis	8081B		20	210430	12/30/21 09:01	WN7O	ELLE
Total/NA	Prep	3546			210276	12/29/21 17:12	FTV5	ELLE
Total/NA	Analysis	8082A		1	210587	12/30/21 15:23	JC94	ELLE
Total/NA	Prep	3050B			207001	12/18/21 09:08	UJLA	ELLE
Total/NA	Analysis	6010D		1	210355	12/29/21 20:18	T8CQ	ELLE
Total/NA	Prep	3050B			207001	12/18/21 09:08	UJLA	ELLE
Total/NA	Analysis	6010D		1	209849	12/28/21 20:12	T8CQ	ELLE
Total/NA	Prep	7471B			207040	12/18/21 10:56	UAMX	ELLE
Total/NA	Analysis	7471B		1	207967	12/21/21 11:36	UEFS	ELLE
Total/NA	Analysis	EPA-Lloyd Kahn		1	383330	12/22/21 22:31	DLF	TAL PIT

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date																
Virginia	NELAP	460182	06-14-22																
<p>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.</p> <table border="1"> <thead> <tr> <th>Analysis Method</th> <th>Prep Method</th> <th>Matrix</th> <th>Analyte</th> </tr> </thead> <tbody> <tr> <td>8260C</td> <td>5035</td> <td>Solid</td> <td>m&p-Xylene</td> </tr> <tr> <td>8260C</td> <td>5035</td> <td>Solid</td> <td>o-Xylene</td> </tr> <tr> <td>Moisture</td> <td></td> <td>Solid</td> <td>Percent Moisture</td> </tr> </tbody> </table>				Analysis Method	Prep Method	Matrix	Analyte	8260C	5035	Solid	m&p-Xylene	8260C	5035	Solid	o-Xylene	Moisture		Solid	Percent Moisture
Analysis Method	Prep Method	Matrix	Analyte																
8260C	5035	Solid	m&p-Xylene																
8260C	5035	Solid	o-Xylene																
Moisture		Solid	Percent Moisture																

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	01-02-22
California	State	2891	04-30-22
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	06-30-22
Georgia	State	PA 02-00416	01-02-22
Illinois	NELAP	004375	01-02-22
Kansas	NELAP	E-10350	01-02-22
Kentucky (UST)	State	162013	04-30-22
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	06-30-22
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-22-21
Nevada	State	PA00164	08-31-22
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	01-02-22
New York	NELAP	11182	01-02-22
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-22
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	01-02-22
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-22
Texas	NELAP	T104704528	01-02-22
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-22
Virginia	NELAP	10043	01-02-22
West Virginia DEP	State	142	01-02-22
Wisconsin	State	998027800	08-31-22

Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
6010D	Metals (ICP)	SW846	ELLE
7471B	Mercury (CVAA)	SW846	ELLE
EPA-Lloyd Kahn	Organic Carbon, Total (TOC)	EPA	TAL PIT
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
7471B	Preparation, Mercury	SW846	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-67201-1	PS-04 (0.0-0.5)	Solid	12/15/21 14:35	12/16/21 18:18

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Eurofins Lancaster Laboratories Env, LLC

2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

2388

Chain of Custody Record



ins Environment Testing America

Client Information (Sub Contract Lab)		Sampler:		Lab PM: Tessier, Kelly		Job #: 410-67201-1											
Client Contact: Shipping/Receiving		Phone:		E-Mail: kelly.tessier@eurofinset.com		410-67201 Chain of Custody											
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See no.): NELAP - Virginia															
Address: 301 Alpha Drive, RIDC Park, City: Pittsburgh State, Zip: PA, 15238 Phone: 412-963-7058(Tel) 412-963-2468(Fax) Email:		Due Date Requested: 1/17/2022 TAT Requested (days):		Analysis Requested		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:											
Project Name: Mueser, Alexandria Site:		Project #: 41008456 SSOW#:		PO #: WO #:		Total Number of containers											
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Lloyd_Kahn_Mod		Special Instructions/Note:	
PS-04 (0.0-0.5) (410-67201-1)		12/15/21		14:35 Eastern				Solid		X						1	
Preservation Code:																	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Lancaster Laboratories Env places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Lancaster Laboratories Env laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Lancaster Laboratories Env attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Lancaster Laboratories Env.</p>																	
Possible Hazard Identification										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
Unconfirmed										<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested: I, II, III, IV, Other (specify)						Primary Deliverable Rank: 2						Special Instructions/QC Requirements:					
Empty Kit Relinquished by:				Date:				Time:				Method of Shipment:					
Relinquished by: <i>Kathleen Z</i>				Date/Time: 12/20/21 1517				Company: ELLE				Received by: <i>DN</i>					
Relinquished by:				Date/Time:				Company:				Received by:					
Relinquished by:				Date/Time:				Company:				Received by:					
Custody Seals Intact: Δ Yes Δ No				Custody Seal No.:				Cooler Temperature(s) °C and Other Remarks:									



Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-67201-1

Login Number: 67201

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Leakway, Christian

Question	Answer	Comment
The cooler's custody seal is 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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	

Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-67201-1

Login Number: 67201

List Number: 2

Creator: Jodis, Matthew V

List Source: Eurofins Pittsburgh

List Creation: 12/21/21 04:27 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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?	N/A	
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-67201-2
Client Project/Site: Mueser , Alexandria

For:
Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
1/10/2022 1:17:20 PM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

LINKS

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results through
TotalAccess

Have a Question?



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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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Kelly Tessier

Kelly Tessier
Project Manager
1/10/2022 1:17:20 PM



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Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-2

Qualifiers

Geotechnical

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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
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

Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-2

Job ID: 410-67201-2

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

**Job Narrative
410-67201-2**

Receipt

The sample was received on 12/16/2021 6:18 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

Geotechnical

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

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Detection Summary

Client: Roux Associates, Inc.
 Project/Site: Mueser , Alexandria

Job ID: 410-67201-2

Client Sample ID: PS-04 (0.0-0.5)

Lab Sample ID: 410-67201-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gravel	0.6	J	1.0	0.5	%	1		D422	Total/NA
Sand	10.9		1.0	0.5	%	1		D422	Total/NA
Silt	68.5		1.0	0.5	%	1		D422	Total/NA
Clay	20.0		1.0	0.5	%	1		D422	Total/NA
75 mm	99.4		1.0	0.5	% Passing	1		D422	Total/NA
37.5 mm	99.4		1.0	0.5	% Passing	1		D422	Total/NA
19 mm	99.4		1.0	0.5	% Passing	1		D422	Total/NA
4.75 mm	99.4		1.0	0.5	% Passing	1		D422	Total/NA
3.35 mm	99.1		1.0	0.5	% Passing	1		D422	Total/NA
2.36 mm	98.5		1.0	0.5	% Passing	1		D422	Total/NA
1.18 mm	90.7		1.0	0.5	% Passing	1		D422	Total/NA
0.6 mm	89.7		1.0	0.5	% Passing	1		D422	Total/NA
0.3 mm	89.2		1.0	0.5	% Passing	1		D422	Total/NA
0.15 mm	88.8		1.0	0.5	% Passing	1		D422	Total/NA
0.064 mm	84.0		1.0	0.5	% Passing	1		D422	Total/NA
0.05 mm	70.0		1.0	0.5	% Passing	1		D422	Total/NA
0.02 mm	48.0		1.0	0.5	% Passing	1		D422	Total/NA
0.005 mm	20.0		1.0	0.5	% Passing	1		D422	Total/NA
0.002 mm	6.0		1.0	0.5	% Passing	1		D422	Total/NA
0.075 mm	88.5		1.0	0.5	% Passing	1		D422	Total/NA

DRAFT

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser , Alexandria

Job ID: 410-67201-2

Client Sample ID: PS-04 (0.0-0.5)

Lab Sample ID: 410-67201-1

Date Collected: 12/15/21 14:35

Matrix: Solid

Date Received: 12/16/21 18:18

Method: D422 - Grain Size

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.6	J	1.0	0.5	%			12/30/21 11:30	1
Sand	10.9		1.0	0.5	%			12/30/21 11:30	1
Silt	68.5		1.0	0.5	%			12/30/21 11:30	1
Clay	20.0		1.0	0.5	%			12/30/21 11:30	1
75 mm	99.4		1.0	0.5	% Passing			12/30/21 11:30	1
37.5 mm	99.4		1.0	0.5	% Passing			12/30/21 11:30	1
19 mm	99.4		1.0	0.5	% Passing			12/30/21 11:30	1
4.75 mm	99.4		1.0	0.5	% Passing			12/30/21 11:30	1
3.35 mm	99.1		1.0	0.5	% Passing			12/30/21 11:30	1
2.36 mm	98.5		1.0	0.5	% Passing			12/30/21 11:30	1
1.18 mm	90.7		1.0	0.5	% Passing			12/30/21 11:30	1
0.6 mm	89.7		1.0	0.5	% Passing			12/30/21 11:30	1
0.3 mm	89.2		1.0	0.5	% Passing			12/30/21 11:30	1
0.15 mm	88.8		1.0	0.5	% Passing			12/30/21 11:30	1
0.064 mm	84.0		1.0	0.5	% Passing			12/30/21 11:30	1
0.05 mm	70.0		1.0	0.5	% Passing			12/30/21 11:30	1
0.02 mm	48.0		1.0	0.5	% Passing			12/30/21 11:30	1
0.005 mm	20.0		1.0	0.5	% Passing			12/30/21 11:30	1
0.002 mm	6.0		1.0	0.5	% Passing			12/30/21 11:30	1
0.001 mm	0.5	U	1.0	0.5	% Passing			12/30/21 11:30	1
0.075 mm	88.5		1.0	0.5	% Passing			12/30/21 11:30	1

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0.75 Inch	555.45	555.45
#4	502.97	502.97
#6	482.90	482.47
#8	430.74	429.66
PAN	548.52	385.31

Comments: _____

Sieve Size (Mr)	Tare+Sample Wt. (g)	Tare Weight (g)
#16	455.93 455.93	452
#30	294.13	293.67
#50	265.87	265.59
#100	318.47	318.29
#200	216.76	216.61
PAN	385.42	385.32

Grain Size Classification	
% Gravel	0.6
% Sand	10.88
% Silt	68.52
% Clay	20
% Clay + Silt	_____

Balance ID#: 18959 Oven ID# 18961
 Oven Date/Time/Temp In: 1-7-22 1100 105° Oven Date/Time/Temp Out: 1-10-22 1030 100°

Moisture #3 448 1198 1-7-22

Tare Weight (g)	Sample Weight (g)	Oven Dry Wt. (g)
0.7896	0.7896	5.7470
	5.0854	

Init./Emp. #: 448 1198

Bulk Density

Tare Weight (g)	Sample Weight (g)	DI H ₂ O+Sp. Wt. (g)
66.5578	9.8581	104.995
		104.9975

Init./Emp. #: 448 1198
 #3 448 1198
 1-7-22

Hydrometer Readings Sample Wt. 50.67 Hydrometer ID #: 237666 Init./Emp. #: 448

Time	Temp	Reading
2 minutes	22	1.019
5 minutes	22	1.017
15 minutes	22	1.015
30 minutes	22	1.012
60 minutes	22	1.011
250 minutes	22	1.008
1440 minutes	22	1.005

Comments: _____

Oven ID#: 11685
 Oven Date/Time/Temp In: 1-8-22
 Oven Date/Time/Temp Out: 1-10-22

Particle Size Distribution

Sample: 410-67201 **Date:** 12/30/21 **Init/Emp #** VS41049

Percent Passing	Particle Size
99.40	75
99.40	37.5
99.40	19
99.40	4.75
99.14	3.35
98.49	2.36
90.65	1.18
89.73	0.6
89.17	0.3
88.82	0.15
88.52	0.075
58.52	0.03859
50.66	0.02494
42.79	0.01470
30.99	0.01073
27.06	0.00767
15.26	0.00387
3.46	0.00166

- * Used for line 1
- ** Used for line 2
- *** Used for lines 1 and 2
- + Calculated from line 1
- ++ Calculated from line 2

Log (particle size)
-1.124939
-1.413529
-1.603097
-1.832646
-1.969478
-2.115076
-2.412379
-2.780688

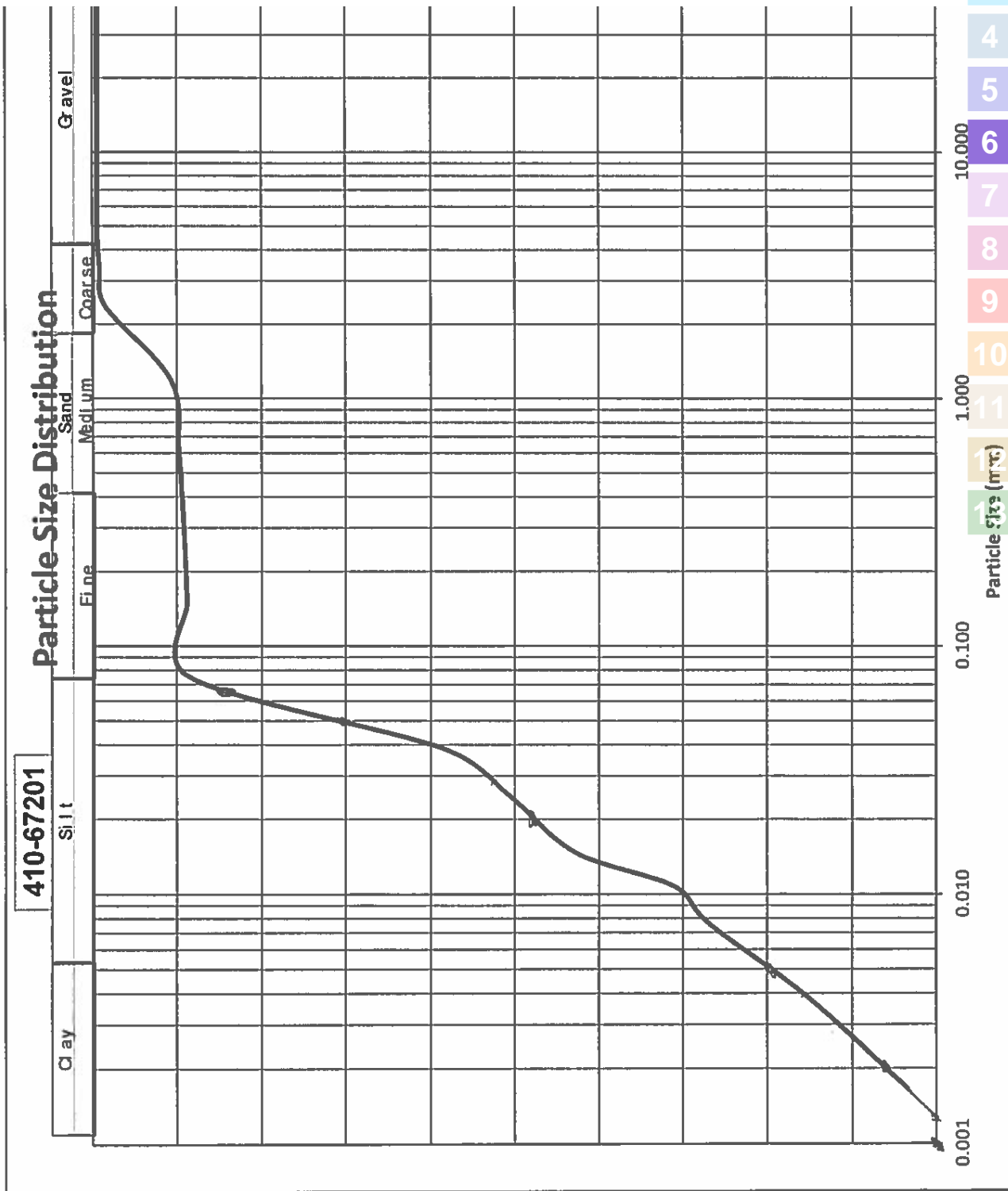
Line 1 Regr
Constant
Std Err of Y Est
R Squared
No. of Observatio
Degrees of Freedc
X Coefficient(s)
Std Err of Coef.

Line 2 Regr
Constant
Std Err of Y Est
R Squared
No. of Observatio
Degrees of Freedc
X Coefficient(s)
Std Err of Coef.

Particle Size Ca:	
0.064	84
0.05	70
0.02	48
0.005	20
0.002	6
0.001	0

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Particle Size Distribution

Sample:	Date:	Init/Emp #
410-67201	12/30/21	VS41049

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	538.70	537.70	1.00	99.3965725
1.5 inch	559.21	559.21	0.00	99.3965725
0.75 inch	555.45	555.45	0.00	99.3965725
# 4	502.97	502.97	0.00	99.3965725
# 6	482.90	482.47	0.43	99.1370987
# 8	430.74	429.66	1.08	98.4853971
PAN	548.52	385.31	163.21	

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	455.93	452.00	3.93	90.6495736
# 30	294.13	293.67	0.46	89.7324034
# 50	265.87	265.59	0.28	89.1741259
# 100	318.47	318.29	0.18	88.8152333
# 200	216.76	216.61	0.15	88.516156
PAN	385.42	385.32	0.10	

Moisture			
Tare Weight	Sample Weight	Oven Dry Weight	Ratio
0.7896	5.0854	5.7470	0.9748

Bulk Density			
Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol Soil
66.5578	9.8581	104.9975	95.1394
			4.8606

Hydrometer Readings			
Time	Sample Weight	50.67 Reading	Hydrometer #: 237666
2 minutes	22.0	1.0190	Corr. Rndg. 1.015
5 minutes	22.0	1.0170	0.0386
15 minutes	22.0	1.0150	1.013
30 minutes	22.0	1.0120	0.0249
60 minutes	22.0	1.0110	1.011
250 minutes	22.0	1.0080	1.008
1440 minutes	22.0	1.0052	1.007
			1.004
			1.001
			0.0017
			0.0039

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-2

Geotechnical

Analysis Batch: 213154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67201-1	PS-04 (0.0-0.5)	Total/NA	Solid	D422	

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Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-2

Client Sample ID: PS-04 (0.0-0.5)

Lab Sample ID: 410-67201-1

Date Collected: 12/15/21 14:35

Matrix: Solid

Date Received: 12/16/21 18:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D422		1	213154	12/30/21 11:30	DZU8	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-2

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22

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
D422		Solid	0.001 mm
D422		Solid	0.002 mm
D422		Solid	0.005 mm
D422		Solid	0.02 mm
D422		Solid	0.05 mm
D422		Solid	0.064 mm
D422		Solid	0.075 mm
D422		Solid	0.15 mm
D422		Solid	0.3 mm
D422		Solid	0.6 mm
D422		Solid	1.18 mm
D422		Solid	19 mm
D422		Solid	2.36 mm
D422		Solid	3.35 mm
D422		Solid	37.5 mm
D422		Solid	4.75 mm
D422		Solid	75 mm
D422		Solid	Clay
D422		Solid	Gravel
D422		Solid	Sand
D422		Solid	Silt

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Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-2

Method	Method Description	Protocol	Laboratory
D422	Grain Size	ASTM	ELLE

Protocol References:

ASTM = ASTM International

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser , Alexandria

Job ID: 410-67201-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-67201-1	PS-04 (0.0-0.5)	Solid	12/15/21 14:35	12/16/21 18:18

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Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-67201-2

Login Number: 67201

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Leakway, Christian

Question	Answer	Comment
The cooler's custody seal is 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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-67738-1
Client Project/Site: Mueser - Alexandria

For:
Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
1/10/2022 1:57:21 PM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

LINKS

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results through
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Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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A handwritten signature in cursive script that reads "Kelly Tessier".

Kelly Tessier
Project Manager
1/10/2022 1:57:21 PM



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Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
cn	Refer to Case Narrative for further detail
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, low biased.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
^5+	Linear Range Check (LRC) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
cn	Refer to Case Narrative for further detail
F1	MS and/or MSD recovery exceeds control limits.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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"

Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Glossary (Continued)

Abbreviation **These commonly used abbreviations may or may not be present in this report.**

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
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

DRAFT

Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Job ID: 410-67738-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-67738-1

Receipt

The samples were received on 12/21/2021 6:23 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.6°C

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

A trip blank was not submitted for analysis with this sample shipment; and was not listed on the Chain of Custody (COC).

GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-208918 recovered outside acceptance criteria, low biased, for Methylcyclohexane. A reporting limit (RL) standard was analyzed and non-detections of the affected analytes are reported. Any detections are considered estimated.

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

GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) associated with batch 410-211429 recovered above the upper control limit for Caprolactam. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The following analyte(s) recovered outside control limits for the LCS associated with preparation batch 410-210970 and analytical batch 410-211429: Benzaldehyde. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

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

PCBs

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

Pesticides

Method 8081B: The continuing calibration verification (CCV) associated with batch 410-209488 recovered above the upper control limit for multiple targets. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: BH-16 (410-67738-1).

Method 8081B: The following sample was diluted due to the nature of the sample matrix: BH-16 (0.0-0.5) (410-67738-2). Elevated reporting limits (RLs) are provided.

Method 8081B: The continuing calibration verification (CCV) associated with batch 410-211349 recovered above the upper control limit for p,p'-DDT and Methoxychlor. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: BH-16 (0.0-0.5) (410-67738-2).

Method 8081B: The laboratory control sample (LCS) for preparation batch 410-210973 and analytical batch 410-211349 recovered outside control limits (low) for the following analytes: beta-BHC, delta-BHC and gamma-BHC (Lindane). Multiple soil LCS's have been having this exact issue recently. Other samples from other jobs have been RX but RX had the same issue. Sample is ND.

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

Metals

Method 6010D: The following sample was not filtered within 15 minutes of sample collection as required by the method: BH-16

Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Job ID: 410-67738-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti)

(410-67738-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 7470A: The following sample was not filtered within 15 minutes of sample collection as required by the method: BH-16 (410-67738-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

Method 7470A: The following sample was not filtered within 15 minutes of sample collection as required by the method: BH-16 (410-67738-1). The sample(s) was filtered prior to analysis at the laboratory, and the results have been reported.

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

General Chemistry

Method Lloyd_Kahn_Mod: Please note that the reporting limit for Lloyd Kahn TOC analysis is a nominal value and does not reflect adjustments in sample mass processed on an individual basis. BH-16 (0.0-0.5) (410-67738-2), (410-68065-B-2), (410-68065-B-2 MS) and (410-68065-B-2 MSD)

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

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Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Client Sample ID: BH-16

Lab Sample ID: 410-67738-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	13		1.0	0.40	ug/L	1		8260C	Total/NA
Methylcyclohexane	0.76	J	5.0	0.50	ug/L	1		8260C	Total/NA
Toluene	59		1.0	0.20	ug/L	1		8260C	Total/NA
m&p-Xylene	51		5.0	2.0	ug/L	1		8260C	Total/NA
Acetone	1.5	J	20	0.70	ug/L	1		8260C	Total/NA
Chloroform	0.36	J	1.0	0.30	ug/L	1		8260C	Total/NA
Benzene	3.1		1.0	0.30	ug/L	1		8260C	Total/NA
o-Xylene	24		1.0	0.40	ug/L	1		8260C	Total/NA
Isopropylbenzene	1.4	J	5.0	0.20	ug/L	1		8260C	Total/NA
2-Methylnaphthalene	9.0		0.51	0.10	ug/L	1		8270D	Total/NA
4-Methylphenol	1.0	J	2.1	0.51	ug/L	1		8270D	Total/NA
Acenaphthylene	0.34	J	0.51	0.10	ug/L	1		8270D	Total/NA
Naphthalene	13		0.51	0.10	ug/L	1		8270D	Total/NA
Phenanthrene	0.11	J	0.51	0.11	ug/L	1		8270D	Total/NA
Phenol	0.67	J	2.1	0.51	ug/L	1		8270D	Total/NA
Aluminum	0.19	J	0.30	0.15	mg/L	1		6010D	Total Recoverable
Barium	0.042		0.0050	0.0010	mg/L	1		6010D	Total Recoverable
Calcium	45		0.50	0.096	mg/L	1		6010D	Total Recoverable
Iron	0.35		0.20	0.040	mg/L	1		6010D	Total Recoverable
Magnesium	12		0.10	0.040	mg/L	1		6010D	Total Recoverable
Manganese	0.040		0.010	0.0030	mg/L	1		6010D	Total Recoverable
Potassium	3.3		0.50	0.20	mg/L	1		6010D	Total Recoverable
Sodium	16		1.0	0.24	mg/L	1		6010D	Total Recoverable
Zinc	0.0048	J	0.020	0.0037	mg/L	1		6010D	Total Recoverable
Barium	0.040		0.0052	0.0010	mg/L	1		6010D	Dissolved
Calcium	45		0.52	0.099	mg/L	1		6010D	Dissolved
Iron	0.050	J	0.21	0.041	mg/L	1		6010D	Dissolved
Magnesium	12		0.10	0.041	mg/L	1		6010D	Dissolved
Potassium	3.3		0.52	0.21	mg/L	1		6010D	Dissolved
Sodium	17		1.0	0.25	mg/L	1		6010D	Dissolved
Total Hardness	160	F1	50	15	mg/L	5		2340C-2011	Total/NA
Total Organic Carbon	2.1		1.0	0.50	mg/L	1		5310C-2011	Total/NA

Client Sample ID: BH-16 (0.0-0.5)

Lab Sample ID: 410-67738-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	73	cn	50	15	ug/Kg	1	✳	8260C	Total/NA
2-Butanone	15	J cn	25	5.0	ug/Kg	1	✳	8260C	Total/NA
1,1,2-Trichloroethane	1.4	J cn	12	1.2	ug/Kg	1	✳	8260C	Total/NA
2-Methylnaphthalene	17	J cn	35	11	ug/Kg	1	✳	8270D	Total/NA
Acenaphthene	18	J cn	35	7.1	ug/Kg	1	✳	8270D	Total/NA
Acenaphthylene	30	J cn	35	8.5	ug/Kg	1	✳	8270D	Total/NA
Anthracene	23	J cn	35	7.1	ug/Kg	1	✳	8270D	Total/NA
Benzaldehyde	86	J *- cn	350	71	ug/Kg	1	✳	8270D	Total/NA
Benzo[a]anthracene	64	cn	35	7.1	ug/Kg	1	✳	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Client Sample ID: BH-16 (0.0-0.5) (Continued)

Lab Sample ID: 410-67738-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	80	cn	35	7.1	ug/Kg	1	✳	8270D	Total/NA
Benzo[b]fluoranthene	97	cn	35	7.1	ug/Kg	1	✳	8270D	Total/NA
Benzo[g,h,i]perylene	75	cn	35	7.1	ug/Kg	1	✳	8270D	Total/NA
Benzo[k]fluoranthene	47	cn	35	7.1	ug/Kg	1	✳	8270D	Total/NA
Chrysene	94	cn	35	7.1	ug/Kg	1	✳	8270D	Total/NA
Dibenz(a,h)anthracene	30	J cn	35	14	ug/Kg	1	✳	8270D	Total/NA
Fluoranthene	130	cn	35	7.1	ug/Kg	1	✳	8270D	Total/NA
Fluorene	17	J cn	35	7.1	ug/Kg	1	✳	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	47	cn	35	8.5	ug/Kg	1	✳	8270D	Total/NA
Naphthalene	21	J cn	35	14	ug/Kg	1	✳	8270D	Total/NA
Phenanthrene	63	cn	35	8.5	ug/Kg	1	✳	8270D	Total/NA
Pyrene	130	cn	35	7.1	ug/Kg	1	✳	8270D	Total/NA
PCB-1260 (2C)	20	J F1	36	14	ug/Kg	1	✳	8082A	Total/NA
Aluminum	27000		32	17	mg/Kg	1	✳	6010D	Total/NA
Arsenic	12		4.8	2.2	mg/Kg	1	✳	6010D	Total/NA
Barium	190		0.80	0.24	mg/Kg	1	✳	6010D	Total/NA
Beryllium	1.5		0.80	0.16	mg/Kg	1	✳	6010D	Total/NA
Cadmium	0.75	J	0.80	0.16	mg/Kg	1	✳	6010D	Total/NA
Calcium	5300		80	19	mg/Kg	1	✳	6010D	Total/NA
Chromium	40		2.4	0.29	mg/Kg	1	✳	6010D	Total/NA
Cobalt	23		0.80	0.23	mg/Kg	1	✳	6010D	Total/NA
Copper	67		3.2	1.2	mg/Kg	1	✳	6010D	Total/NA
Iron	40000		32	9.9	mg/Kg	1	✳	6010D	Total/NA
Lead	42		2.4	0.96	mg/Kg	1	✳	6010D	Total/NA
Magnesium	4800	^2 ^5-	16	6.4	mg/Kg	1	✳	6010D	Total/NA
Manganese	850		1.6	0.83	mg/Kg	1	✳	6010D	Total/NA
Nickel	39		1.6	0.41	mg/Kg	1	✳	6010D	Total/NA
Potassium	3100	^2	80	32	mg/Kg	1	✳	6010D	Total/NA
Selenium	5.1	J	8.0	2.4	mg/Kg	1	✳	6010D	Total/NA
Sodium	140	J	160	74	mg/Kg	1	✳	6010D	Total/NA
Zinc	210		3.2	1.6	mg/Kg	1	✳	6010D	Total/NA
Vanadium	55		1.6	0.68	mg/Kg	1	✳	6010D	Total/NA
Mercury	0.25		0.13	0.053	mg/Kg	1	✳	7471B	Total/NA
Total Organic Carbon - Duplicates	35000	cn	2100	2100	mg/Kg	1	✳	EPA-Lloyd Kahn	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Client Sample ID: BH-16

Lab Sample ID: 410-67738-1

Date Collected: 12/20/21 08:50

Matrix: Water

Date Received: 12/21/21 18:23

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			12/30/21 15:13	1
trans-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			12/30/21 15:13	1
Ethylbenzene	13		1.0	0.40	ug/L			12/30/21 15:13	1
Styrene	0.30	U	5.0	0.30	ug/L			12/30/21 15:13	1
1,4-Dichlorobenzene	0.30	U	5.0	0.30	ug/L			12/30/21 15:13	1
1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L			12/30/21 15:13	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/L			12/30/21 15:13	1
4-Methyl-2-pentanone	0.50	U	10	0.50	ug/L			12/30/21 15:13	1
Methylcyclohexane	0.76 J		5.0	0.50	ug/L			12/30/21 15:13	1
Toluene	59		1.0	0.20	ug/L			12/30/21 15:13	1
Chlorobenzene	0.30	U	1.0	0.30	ug/L			12/30/21 15:13	1
Cyclohexane	1.0	U	5.0	1.0	ug/L			12/30/21 15:13	1
1,2,4-Trichlorobenzene	0.30	U	5.0	0.30	ug/L			12/30/21 15:13	1
1,4-Dioxane	29	U	250	29	ug/L			12/30/21 15:13	1
Dibromochloromethane	0.20	U	1.0	0.20	ug/L			12/30/21 15:13	1
Tetrachloroethene	0.30	U	1.0	0.30	ug/L			12/30/21 15:13	1
cis-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/30/21 15:13	1
trans-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/30/21 15:13	1
Methyl tertiary butyl ether	0.20	U	1.0	0.20	ug/L			12/30/21 15:13	1
m&p-Xylene	51		5.0	2.0	ug/L			12/30/21 15:13	1
1,3-Dichlorobenzene	0.30	U	5.0	0.30	ug/L			12/30/21 15:13	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			12/30/21 15:13	1
2-Hexanone	0.40	U	10	0.40	ug/L			12/30/21 15:13	1
Acetone	1.5 J		20	0.70	ug/L			12/30/21 15:13	1
Chloroform	0.36 J		1.0	0.30	ug/L			12/30/21 15:13	1
Benzene	3.1		1.0	0.30	ug/L			12/30/21 15:13	1
1,1,1-Trichloroethane	0.30	U	1.0	0.30	ug/L			12/30/21 15:13	1
Bromomethane	0.30	U	1.0	0.30	ug/L			12/30/21 15:13	1
Chloromethane	0.20	U *+	1.0	0.20	ug/L			12/30/21 15:13	1
Bromochloromethane	0.20	U	5.0	0.20	ug/L			12/30/21 15:13	1
Chloroethane	0.20	U	1.0	0.20	ug/L			12/30/21 15:13	1
Vinyl chloride	0.20	U	1.0	0.20	ug/L			12/30/21 15:13	1
Methylene Chloride	0.30	U	1.0	0.30	ug/L			12/30/21 15:13	1
Carbon disulfide	0.30	U	5.0	0.30	ug/L			12/30/21 15:13	1
Bromoform	1.0	U	4.0	1.0	ug/L			12/30/21 15:13	1
Bromodichloromethane	0.20	U	1.0	0.20	ug/L			12/30/21 15:13	1
1,1-Dichloroethane	0.30	U	1.0	0.30	ug/L			12/30/21 15:13	1
1,1-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/30/21 15:13	1
Trichlorofluoromethane	0.20	U	1.0	0.20	ug/L			12/30/21 15:13	1
Dichlorodifluoromethane	0.20	U	1.0	0.20	ug/L			12/30/21 15:13	1
Freon 113	0.30	U	10	0.30	ug/L			12/30/21 15:13	1
1,2-Dichloropropane	0.30	U	1.0	0.30	ug/L			12/30/21 15:13	1
2-Butanone	0.50	U	10	0.50	ug/L			12/30/21 15:13	1
1,1,2-Trichloroethane	0.30	U	1.0	0.30	ug/L			12/30/21 15:13	1
Trichloroethene	0.30	U	1.0	0.30	ug/L			12/30/21 15:13	1
Methyl acetate	0.30	U *+	5.0	0.30	ug/L			12/30/21 15:13	1
1,1,2,2-Tetrachloroethane	0.30	U	1.0	0.30	ug/L			12/30/21 15:13	1
1,2,3-Trichlorobenzene	0.40	U	5.0	0.40	ug/L			12/30/21 15:13	1
o-Xylene	24		1.0	0.40	ug/L			12/30/21 15:13	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Client Sample ID: BH-16
Date Collected: 12/20/21 08:50
Date Received: 12/21/21 18:23

Lab Sample ID: 410-67738-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	0.20	U	5.0	0.20	ug/L			12/30/21 15:13	1
1,2-Dibromo-3-Chloropropane	0.30	U	5.0	0.30	ug/L			12/30/21 15:13	1
Isopropylbenzene	1.4	J	5.0	0.20	ug/L			12/30/21 15:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		80 - 120					12/30/21 15:13	1
4-Bromofluorobenzene (Surr)	100		80 - 120					12/30/21 15:13	1
Dibromofluoromethane (Surr)	102		80 - 120					12/30/21 15:13	1
Toluene-d8 (Surr)	100		80 - 120					12/30/21 15:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
1,2,4,5-Tetrachlorobenzene	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
2,2'-oxybis[1-chloropropane]	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
2,3,4,6-Tetrachlorophenol	1.0	U	5.1	1.0	ug/L		12/22/21 22:35	01/06/22 17:36	1
2,4,5-Trichlorophenol	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
2,4,6-Trichlorophenol	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
2,4-Dichlorophenol	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
2,4-Dimethylphenol	3.1	U	10	3.1	ug/L		12/22/21 22:35	01/06/22 17:36	1
2,4-Dinitrophenol	14	U	31	14	ug/L		12/22/21 22:35	01/06/22 17:36	1
2,4-Dinitrotoluene	1.0	U	5.1	1.0	ug/L		12/22/21 22:35	01/06/22 17:36	1
2,6-Dinitrotoluene	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
2-Chloronaphthalene	0.41	U	1.0	0.41	ug/L		12/22/21 22:35	01/06/22 17:36	1
2-Chlorophenol	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
2-Methylnaphthalene	9.0		0.51	0.10	ug/L		12/22/21 22:35	01/06/22 17:36	1
2-Methylphenol	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
2-Nitroaniline	1.0	U	5.1	1.0	ug/L		12/22/21 22:35	01/06/22 17:36	1
2-Nitrophenol	1.0	U	5.1	1.0	ug/L		12/22/21 22:35	01/06/22 17:36	1
3,3'-Dichlorobenzidine	4.1	U	10	4.1	ug/L		12/22/21 22:35	01/06/22 17:36	1
3-Nitroaniline	2.1	U	5.1	2.1	ug/L		12/22/21 22:35	01/06/22 17:36	1
4,6-Dinitro-2-methylphenol	8.2	U	22	8.2	ug/L		12/22/21 22:35	01/06/22 17:36	1
4-Bromophenyl-phenylether	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
4-Chloro-3-methylphenol	1.0	U	5.1	1.0	ug/L		12/22/21 22:35	01/06/22 17:36	1
4-Methylphenol	1.0	J	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
4-Nitroaniline	0.92	U	3.1	0.92	ug/L		12/22/21 22:35	01/06/22 17:36	1
4-Nitrophenol	10	U	31	10	ug/L		12/22/21 22:35	01/06/22 17:36	1
Acenaphthene	0.10	U	0.51	0.10	ug/L		12/22/21 22:35	01/06/22 17:36	1
Acenaphthylene	0.34	J	0.51	0.10	ug/L		12/22/21 22:35	01/06/22 17:36	1
Acetophenone	1.0	U	5.1	1.0	ug/L		12/22/21 22:35	01/06/22 17:36	1
Anthracene	0.10	U	0.51	0.10	ug/L		12/22/21 22:35	01/06/22 17:36	1
Atrazine	1.0	U	5.1	1.0	ug/L		12/22/21 22:35	01/06/22 17:36	1
Benzaldehyde	1.0	U	5.1	1.0	ug/L		12/22/21 22:35	01/06/22 17:36	1
Benzo[a]anthracene	0.10	U	0.51	0.10	ug/L		12/22/21 22:35	01/06/22 17:36	1
Benzo[a]pyrene	0.11	U	0.51	0.11	ug/L		12/22/21 22:35	01/06/22 17:36	1
Benzo[b]fluoranthene	0.10	U	0.51	0.10	ug/L		12/22/21 22:35	01/06/22 17:36	1
Benzo[g,h,i]perylene	0.10	U	0.51	0.10	ug/L		12/22/21 22:35	01/06/22 17:36	1
Benzo[k]fluoranthene	0.10	U	0.51	0.10	ug/L		12/22/21 22:35	01/06/22 17:36	1
Bis(2-chloroethoxy)methane	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
Bis(2-chloroethyl)ether	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Client Sample ID: BH-16

Lab Sample ID: 410-67738-1

Date Collected: 12/20/21 08:50

Matrix: Water

Date Received: 12/21/21 18:23

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	2.1	U	5.1	2.1	ug/L		12/22/21 22:35	01/06/22 17:36	1
Butylbenzylphthalate	2.1	U	5.1	2.1	ug/L		12/22/21 22:35	01/06/22 17:36	1
Caprolactam	3.1	U	7.2	3.1	ug/L		12/22/21 22:35	01/06/22 17:36	1
Carbazole	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
Chrysene	0.10	U	0.51	0.10	ug/L		12/22/21 22:35	01/06/22 17:36	1
Di-n-butyl phthalate	2.1	U	5.1	2.1	ug/L		12/22/21 22:35	01/06/22 17:36	1
Di-n-octyl phthalate	5.1	U	11	5.1	ug/L		12/22/21 22:35	01/06/22 17:36	1
Dibenz(a,h)anthracene	0.10	U	0.51	0.10	ug/L		12/22/21 22:35	01/06/22 17:36	1
Dibenzofuran	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
Diethyl phthalate	2.1	U	5.1	2.1	ug/L		12/22/21 22:35	01/06/22 17:36	1
Dimethyl phthalate	2.1	U	5.1	2.1	ug/L		12/22/21 22:35	01/06/22 17:36	1
Fluoranthene	0.10	U	0.51	0.10	ug/L		12/22/21 22:35	01/06/22 17:36	1
Fluorene	0.12	U	0.51	0.12	ug/L		12/22/21 22:35	01/06/22 17:36	1
Hexachlorobenzene	0.11	U	0.51	0.11	ug/L		12/22/21 22:35	01/06/22 17:36	1
Hexachlorobutadiene	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
Hexachlorocyclopentadiene	5.1	U	11	5.1	ug/L		12/22/21 22:35	01/06/22 17:36	1
Hexachloroethane	0.51	U	5.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
Indeno[1,2,3-cd]pyrene	0.11	U	0.51	0.11	ug/L		12/22/21 22:35	01/06/22 17:36	1
Isophorone	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
N-Nitrosodi-n-propylamine	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
N-Nitrosodiphenylamine	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
Naphthalene	13		0.51	0.10	ug/L		12/22/21 22:35	01/06/22 17:36	1
Nitrobenzene	0.51	U	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
Phenanthrene	0.11	J	0.51	0.11	ug/L		12/22/21 22:35	01/06/22 17:36	1
Phenol	0.67	J	2.1	0.51	ug/L		12/22/21 22:35	01/06/22 17:36	1
Pyrene	0.10	U	0.51	0.10	ug/L		12/22/21 22:35	01/06/22 17:36	1
Pentachlorophenol	1.0	U	5.1	1.0	ug/L		12/22/21 22:35	01/06/22 17:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	84		31 - 119	12/22/21 22:35	01/06/22 17:36	1
Nitrobenzene-d5 (Surr)	74		22 - 117	12/22/21 22:35	01/06/22 17:36	1
2-Fluorophenol (Surr)	29		10 - 78	12/22/21 22:35	01/06/22 17:36	1
2-Fluorobiphenyl (Surr)	72		35 - 100	12/22/21 22:35	01/06/22 17:36	1
2,4,6-Tribromophenol (Surr)	38		10 - 150	12/22/21 22:35	01/06/22 17:36	1
Phenol-d5 (Surr)	23		10 - 67	12/22/21 22:35	01/06/22 17:36	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	0.0021	U cn	0.021	0.0021	ug/L		12/27/21 10:23	12/28/21 11:05	1
alpha-BHC (2C)	0.0032	U cn	0.021	0.0032	ug/L		12/27/21 10:23	12/28/21 11:05	1
alpha-Chlordane (1C)	0.0032	U cn	0.021	0.0032	ug/L		12/27/21 10:23	12/28/21 11:05	1
beta-BHC (1C)	0.0036	U cn	0.021	0.0036	ug/L		12/27/21 10:23	12/28/21 11:05	1
delta-BHC (1C)	0.0036	U cn	0.021	0.0036	ug/L		12/27/21 10:23	12/28/21 11:05	1
Dieldrin (1C)	0.0056	U cn	0.032	0.0056	ug/L		12/27/21 10:23	12/28/21 11:05	1
Endosulfan I (1C)	0.0045	U cn	0.021	0.0045	ug/L		12/27/21 10:23	12/28/21 11:05	1
Endosulfan II (1C)	0.016	U cn	0.042	0.016	ug/L		12/27/21 10:23	12/28/21 11:05	1
Endosulfan sulfate (1C)	0.0061	U cn	0.032	0.0061	ug/L		12/27/21 10:23	12/28/21 11:05	1
Endrin (1C)	0.0085	U cn	0.032	0.0085	ug/L		12/27/21 10:23	12/28/21 11:05	1
Endrin aldehyde (1C)	0.021	U cn	0.11	0.021	ug/L		12/27/21 10:23	12/28/21 11:05	1
Endrin ketone (1C)	0.0053	U cn	0.032	0.0053	ug/L		12/27/21 10:23	12/28/21 11:05	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Client Sample ID: BH-16
Date Collected: 12/20/21 08:50
Date Received: 12/21/21 18:23

Lab Sample ID: 410-67738-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane) (1C)	0.0021	U cn	0.021	0.0021	ug/L		12/27/21 10:23	12/28/21 11:05	1
gamma-Chlordane (1C)	0.0074	U cn	0.042	0.0074	ug/L		12/27/21 10:23	12/28/21 11:05	1
Heptachlor (1C)	0.0021	U cn	0.021	0.0021	ug/L		12/27/21 10:23	12/28/21 11:05	1
Heptachlor epoxide (1C)	0.0024	U cn	0.021	0.0024	ug/L		12/27/21 10:23	12/28/21 11:05	1
Methoxychlor (1C)	0.032	U cn	0.12	0.032	ug/L		12/27/21 10:23	12/28/21 11:05	1
Toxaphene (1C)	0.32	U cn	1.1	0.32	ug/L		12/27/21 10:23	12/28/21 11:05	1
p,p'-DDD (1C)	0.0053	U cn	0.032	0.0053	ug/L		12/27/21 10:23	12/28/21 11:05	1
p,p'-DDE (1C)	0.0053	U cn	0.032	0.0053	ug/L		12/27/21 10:23	12/28/21 11:05	1
p,p'-DDT (1C)	0.0055	U cn	0.032	0.0055	ug/L		12/27/21 10:23	12/28/21 11:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	61	cn	20 - 149	12/27/21 10:23	12/28/21 11:05	1
DCB Decachlorobiphenyl (Surr) (2C)	56	cn	20 - 149	12/27/21 10:23	12/28/21 11:05	1
Tetrachloro-m-xylene (Surr) (1C)	70	cn	20 - 129	12/27/21 10:23	12/28/21 11:05	1
Tetrachloro-m-xylene (Surr) (2C)	72	cn	20 - 129	12/27/21 10:23	12/28/21 11:05	1

Method: 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.050	0.016	mg/L		12/29/21 05:11	12/29/21 15:35	1
Aluminum	0.19	J	0.30	0.15	mg/L		12/29/21 05:11	12/29/21 15:35	1
Arsenic	0.016	U	0.050	0.016	mg/L		12/29/21 05:11	12/29/21 15:35	1
Barium	0.042		0.0050	0.0010	mg/L		12/29/21 05:11	12/29/21 15:35	1
Beryllium	0.0010	U	0.0050	0.0010	mg/L		12/29/21 05:11	12/29/21 15:35	1
Cadmium	0.0010	U	0.0050	0.0010	mg/L		12/29/21 05:11	12/29/21 15:35	1
Calcium	45		0.50	0.096	mg/L		12/29/21 05:11	12/29/21 15:35	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/29/21 05:11	12/29/21 15:35	1
Cobalt	0.0015	U	0.0050	0.0015	mg/L		12/29/21 05:11	12/29/21 15:35	1
Copper	0.012	U	0.020	0.012	mg/L		12/29/21 05:11	12/29/21 15:35	1
Iron	0.35		0.20	0.040	mg/L		12/29/21 05:11	12/29/21 15:35	1
Lead	0.0071	U	0.015	0.0071	mg/L		12/29/21 05:11	12/29/21 15:35	1
Magnesium	12		0.10	0.040	mg/L		12/29/21 05:11	12/29/21 15:35	1
Manganese	0.040		0.010	0.0030	mg/L		12/29/21 05:11	12/29/21 15:35	1
Nickel	0.0021	U	0.010	0.0021	mg/L		12/29/21 05:11	12/29/21 15:35	1
Potassium	3.3		0.50	0.20	mg/L		12/29/21 05:11	12/30/21 21:01	1
Selenium	0.016	U	0.050	0.016	mg/L		12/29/21 05:11	12/29/21 15:35	1
Silver	0.0050	U ^5-	0.010	0.0050	mg/L		12/29/21 05:11	12/29/21 15:35	1
Sodium	16		1.0	0.24	mg/L		12/29/21 05:11	12/29/21 15:35	1
Thallium	0.0081	U	0.030	0.0081	mg/L		12/29/21 05:11	12/30/21 21:01	1
Zinc	0.0048	J	0.020	0.0037	mg/L		12/29/21 05:11	12/29/21 15:35	1
Vanadium	0.0019	U	0.010	0.0019	mg/L		12/29/21 05:11	12/29/21 15:35	1

Method: 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.052	0.016	mg/L		12/23/21 11:04	12/27/21 16:15	1
Aluminum	0.16	U	0.31	0.16	mg/L		12/23/21 11:04	12/27/21 16:15	1
Arsenic	0.016	U	0.052	0.016	mg/L		12/23/21 11:04	12/28/21 10:29	1
Barium	0.040		0.0052	0.0010	mg/L		12/23/21 11:04	12/27/21 16:15	1
Beryllium	0.0010	U	0.0052	0.0010	mg/L		12/23/21 11:04	12/27/21 16:15	1
Cadmium	0.0010	U	0.0052	0.0010	mg/L		12/23/21 11:04	12/27/21 16:15	1
Calcium	45		0.52	0.099	mg/L		12/23/21 11:04	12/27/21 16:15	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Client Sample ID: BH-16

Lab Sample ID: 410-67738-1

Date Collected: 12/20/21 08:50

Matrix: Water

Date Received: 12/21/21 18:23

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.0016	U	0.015	0.0016	mg/L		12/23/21 11:04	12/27/21 16:15	1
Cobalt	0.0015	U ^5+	0.0052	0.0015	mg/L		12/23/21 11:04	12/27/21 16:15	1
Copper	0.012	U	0.021	0.012	mg/L		12/23/21 11:04	12/27/21 16:15	1
Iron	0.050	J	0.21	0.041	mg/L		12/23/21 11:04	12/27/21 16:15	1
Lead	0.0073	U	0.015	0.0073	mg/L		12/23/21 11:04	12/27/21 16:15	1
Magnesium	12		0.10	0.041	mg/L		12/23/21 11:04	12/27/21 16:15	1
Manganese	0.0031	U	0.010	0.0031	mg/L		12/23/21 11:04	12/27/21 16:15	1
Nickel	0.0022	U ^5+	0.010	0.0022	mg/L		12/23/21 11:04	12/27/21 16:15	1
Potassium	3.3		0.52	0.21	mg/L		12/23/21 11:04	12/27/21 16:15	1
Selenium	0.016	U	0.052	0.016	mg/L		12/23/21 11:04	12/27/21 16:15	1
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/23/21 11:04	12/27/21 16:15	1
Sodium	17		1.0	0.25	mg/L		12/23/21 11:04	12/27/21 16:15	1
Thallium	0.0083	U ^5+	0.031	0.0083	mg/L		12/23/21 11:04	12/27/21 16:15	1
Zinc	0.0038	U	0.021	0.0038	mg/L		12/23/21 11:04	12/27/21 16:15	1
Vanadium	0.0020	U	0.010	0.0020	mg/L		12/23/21 11:04	12/27/21 16:15	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/29/21 08:50	12/29/21 21:58	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/22/21 12:25	12/24/21 15:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	160	F1	50	15	mg/L			12/22/21 10:22	5
Total Organic Carbon	2.1		1.0	0.50	mg/L			12/29/21 07:01	1

Client Sample ID: BH-16 (0.0-0.5)

Lab Sample ID: 410-67738-2

Date Collected: 12/20/21 11:00

Matrix: Solid

Date Received: 12/21/21 18:23

Percent Solids: 46.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.99	U cn	12	0.99	ug/Kg	✱	12/22/21 10:06	12/23/21 19:00	1
trans-1,3-Dichloropropene	1.2	U cn	12	1.2	ug/Kg	✱	12/22/21 10:06	12/23/21 19:00	1
Ethylbenzene	0.99	U cn	12	0.99	ug/Kg	✱	12/22/21 10:06	12/23/21 19:00	1
Styrene	0.99	U cn	12	0.99	ug/Kg	✱	12/22/21 10:06	12/23/21 19:00	1
1,4-Dichlorobenzene	0.99	U cn	12	0.99	ug/Kg	✱	12/22/21 10:06	12/23/21 19:00	1
1,2-Dibromoethane	0.99	U cn	12	0.99	ug/Kg	✱	12/22/21 10:06	12/23/21 19:00	1
1,2-Dichloroethane	1.5	U cn	12	1.5	ug/Kg	✱	12/22/21 10:06	12/23/21 19:00	1
4-Methyl-2-pentanone	2.5	U cn	25	2.5	ug/Kg	✱	12/22/21 10:06	12/23/21 19:00	1
Methylcyclohexane	1.5	U cn	12	1.5	ug/Kg	✱	12/22/21 10:06	12/23/21 19:00	1
Toluene	1.5	U cn	12	1.5	ug/Kg	✱	12/22/21 10:06	12/23/21 19:00	1
Chlorobenzene	1.2	U cn	12	1.2	ug/Kg	✱	12/22/21 10:06	12/23/21 19:00	1
Cyclohexane	1.2	U cn	12	1.2	ug/Kg	✱	12/22/21 10:06	12/23/21 19:00	1
1,2,4-Trichlorobenzene	12	U cn	25	12	ug/Kg	✱	12/22/21 10:06	12/23/21 19:00	1
1,4-Dioxane	92	U cn	620	92	ug/Kg	✱	12/22/21 10:06	12/23/21 19:00	1
Dibromochloromethane	1.2	U cn	12	1.2	ug/Kg	✱	12/22/21 10:06	12/23/21 19:00	1
Tetrachloroethene	1.2	U cn	12	1.2	ug/Kg	✱	12/22/21 10:06	12/23/21 19:00	1

Euofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Client Sample ID: BH-16 (0.0-0.5)

Lab Sample ID: 410-67738-2

Date Collected: 12/20/21 11:00

Matrix: Solid

Date Received: 12/21/21 18:23

Percent Solids: 46.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	1.2	U cn	12	1.2	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
trans-1,2-Dichloroethene	1.2	U cn	12	1.2	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Methyl tertiary butyl ether	1.2	U cn	12	1.2	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
m&p-Xylene	2.5	U cn	12	2.5	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
1,3-Dichlorobenzene	1.2	U cn	12	1.2	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Carbon tetrachloride	1.2	U cn	12	1.2	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
2-Hexanone	2.5	U cn	25	2.5	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Acetone	73	cn	50	15	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Chloroform	1.5	U cn	12	1.5	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Benzene	1.2	U cn	12	1.2	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
1,1,1-Trichloroethane	1.5	U cn	12	1.5	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Bromomethane	1.7	U cn	12	1.7	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Chloromethane	1.5	U cn	12	1.5	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Bromochloromethane	1.5	U cn	12	1.5	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Chloroethane	2.5	U cn	12	2.5	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Vinyl chloride	1.5	U cn	12	1.5	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Methylene Chloride	5.0	U cn	12	5.0	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Carbon disulfide	1.5	U cn	12	1.5	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Bromoform	12	U cn	25	12	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Bromodichloromethane	0.99	U cn	12	0.99	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
1,1-Dichloroethane	1.2	U cn	12	1.2	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
1,1-Dichloroethene	1.2	U cn	12	1.2	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Trichlorofluoromethane	1.7	U cn	12	1.7	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Dichlorodifluoromethane	1.5	U cn	12	1.5	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Freon 113	1.5	U cn	25	1.5	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
1,2-Dichloropropane	1.2	U cn	12	1.2	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
2-Butanone	15	J cn	25	5.0	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
1,1,2-Trichloroethane	1.4	J cn	12	1.2	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Trichloroethene	1.2	U cn	12	1.2	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Methyl acetate	2.5	U cn	12	2.5	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
1,1,2,2-Tetrachloroethane	0.99	U cn	12	0.99	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
1,2,3-Trichlorobenzene	12	U cn	25	12	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
o-Xylene	0.99	U cn	12	0.99	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
1,2-Dichlorobenzene	1.2	U cn	12	1.2	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
1,2-Dibromo-3-Chloropropane	1.2	U cn	12	1.2	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1
Isopropylbenzene	0.99	U cn	12	0.99	ug/Kg	✳	12/22/21 10:06	12/23/21 19:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101	cn	54 - 135	12/22/21 10:06	12/23/21 19:00	1
4-Bromofluorobenzene (Surr)	87	cn	50 - 131	12/22/21 10:06	12/23/21 19:00	1
Dibromofluoromethane (Surr)	102	cn	50 - 141	12/22/21 10:06	12/23/21 19:00	1
Toluene-d8 (Surr)	109	cn	52 - 141	12/22/21 10:06	12/23/21 19:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	35	U cn	78	35	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
1,2,4,5-Tetrachlorobenzene	35	U cn	78	35	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
2,2'-oxybis[1-chloropropane]	43	U cn	92	43	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
2,3,4,6-Tetrachlorophenol	140	U cn	350	140	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
2,4,5-Trichlorophenol	35	U cn	78	35	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Client Sample ID: BH-16 (0.0-0.5)

Lab Sample ID: 410-67738-2

Date Collected: 12/20/21 11:00

Matrix: Solid

Date Received: 12/21/21 18:23

Percent Solids: 46.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	35	U cn	78	35	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
2,4-Dichlorophenol	43	U cn	92	43	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
2,4-Dimethylphenol	35	U cn	78	35	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
2,4-Dinitrophenol	350	U cn	2100	350	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
2,4-Dinitrotoluene	71	U cn	350	71	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
2,6-Dinitrotoluene	35	U cn	78	35	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
2-Chloronaphthalene	28	U cn	71	28	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
2-Chlorophenol	35	U cn	78	35	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
2-Methylnaphthalene	17	J cn	35	11	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
2-Methylphenol	43	U cn	110	43	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
2-Nitroaniline	35	U cn	110	35	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
2-Nitrophenol	43	U cn	110	43	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
3,3'-Dichlorobenzidine	71	U cn	350	71	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
3-Nitroaniline	71	U cn	350	71	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
4,6-Dinitro-2-methylphenol	350	U cn	1100	350	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
4-Bromophenyl-phenylether	35	U cn	78	35	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
4-Chloro-3-methylphenol	43	U cn	110	43	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
4-Methylphenol	35	U cn	110	35	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
4-Nitroaniline	71	U cn	350	71	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
4-Nitrophenol	350	U cn	1100	350	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Acenaphthene	18	J cn	35	7.1	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Acenaphthylene	30	J cn	35	8.5	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Acetophenone	35	U cn	110	35	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Anthracene	23	J cn	35	7.1	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Atrazine	140	U cn	350	140	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Benzaldehyde	86	J *- cn	350	71	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Benzo[a]anthracene	64	cn	35	7.1	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Benzo[a]pyrene	80	cn	35	7.1	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Benzo[b]fluoranthene	97	cn	35	7.1	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Benzo[g,h,i]perylene	75	cn	35	7.1	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Benzo[k]fluoranthene	47	cn	35	7.1	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Bis(2-chloroethoxy)methane	35	U cn	78	35	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Bis(2-chloroethyl)ether	35	U cn	78	35	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Bis(2-ethylhexyl) phthalate	140	U cn	350	140	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Butylbenzylphthalate	140	U cn	350	140	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Caprolactam	71	U cn	350	71	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Carbazole	35	U cn	78	35	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Chrysene	94	cn	35	7.1	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Di-n-butyl phthalate	140	U cn	350	140	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Di-n-octyl phthalate	140	U cn	350	140	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Dibenz(a,h)anthracene	30	J cn	35	14	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Dibenzofuran	35	U cn	78	35	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Diethyl phthalate	140	U cn	350	140	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Dimethyl phthalate	140	U cn	350	140	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Fluoranthene	130	cn	35	7.1	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Fluorene	17	J cn	35	7.1	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Hexachlorobenzene	14	U cn	35	14	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Hexachlorobutadiene	43	U cn	110	43	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1
Hexachlorocyclopentadiene	350	U cn	1100	350	ug/Kg	✳	01/03/22 09:59	01/04/22 19:11	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Client Sample ID: BH-16 (0.0-0.5)

Lab Sample ID: 410-67738-2

Date Collected: 12/20/21 11:00

Matrix: Solid

Date Received: 12/21/21 18:23

Percent Solids: 46.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachloroethane	71	U cn	350	71	ug/Kg	✱	01/03/22 09:59	01/04/22 19:11	1
Indeno[1,2,3-cd]pyrene	47	cn	35	8.5	ug/Kg	✱	01/03/22 09:59	01/04/22 19:11	1
Isophorone	35	U cn	140	35	ug/Kg	✱	01/03/22 09:59	01/04/22 19:11	1
N-Nitrosodi-n-propylamine	71	U cn	140	71	ug/Kg	✱	01/03/22 09:59	01/04/22 19:11	1
N-Nitrosodiphenylamine	35	U cn	78	35	ug/Kg	✱	01/03/22 09:59	01/04/22 19:11	1
Naphthalene	21	J cn	35	14	ug/Kg	✱	01/03/22 09:59	01/04/22 19:11	1
Nitrobenzene	35	U cn	78	35	ug/Kg	✱	01/03/22 09:59	01/04/22 19:11	1
Phenanthrene	63	cn	35	8.5	ug/Kg	✱	01/03/22 09:59	01/04/22 19:11	1
Phenol	35	U cn	78	35	ug/Kg	✱	01/03/22 09:59	01/04/22 19:11	1
Pyrene	130	cn	35	7.1	ug/Kg	✱	01/03/22 09:59	01/04/22 19:11	1
Pentachlorophenol	140	U cn	350	140	ug/Kg	✱	01/03/22 09:59	01/04/22 19:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>p</i> -Terphenyl-d14 (Surr)	55	cn	45 - 108	01/03/22 09:59	01/04/22 19:11	1
Nitrobenzene-d5 (Surr)	35	cn	32 - 97	01/03/22 09:59	01/04/22 19:11	1
2-Fluorophenol (Surr)	39	cn	26 - 96	01/03/22 09:59	01/04/22 19:11	1
2-Fluorobiphenyl (Surr)	48	cn	39 - 100	01/03/22 09:59	01/04/22 19:11	1
2,4,6-Tribromophenol (Surr)	40	cn	13 - 121	01/03/22 09:59	01/04/22 19:11	1
Phenol-d5 (Surr)	42	cn	27 - 104	01/03/22 09:59	01/04/22 19:11	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin (1C)	1.8	U cn	8.9	1.8	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
alpha-BHC (1C)	1.8	U *- cn	8.9	1.8	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
alpha-Chlordane (1C)	1.8	U cn	8.9	1.8	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
beta-BHC (1C)	4.7	U cn	11	4.7	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
delta-BHC (1C)	4.8	U *- cn	11	4.8	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
Dieldrin (1C)	3.5	U cn	18	3.5	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
Endosulfan I (1C)	2.3	U cn	8.9	2.3	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
Endosulfan II (1C)	12	U cn	25	12	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
Endosulfan sulfate (1C)	3.5	U cn	18	3.5	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
Endrin (1C)	7.3	U cn	18	7.3	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
Endrin aldehyde (1C)	3.5	U cn	18	3.5	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
Endrin ketone (1C)	6.4	U cn	21	6.4	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
gamma-BHC (Lindane) (2C)	2.2	U *- cn	8.9	2.2	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
gamma-Chlordane (1C)	2.7	U cn	8.9	2.7	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
Heptachlor (1C)	3.3	U cn	8.9	3.3	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
Heptachlor epoxide (1C)	1.8	U cn	8.9	1.8	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
Methoxychlor (1C)	19	U cn	72	19	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
Toxaphene (1C)	150	U cn	350	150	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
p,p'-DDD (1C)	3.5	U cn	18	3.5	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
p,p'-DDE (1C)	3.5	U cn	18	3.5	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5
p,p'-DDT (1C)	8.4	U cn	18	8.4	ug/Kg	✱	01/03/22 09:55	01/04/22 13:30	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	55	cn	54 - 143	01/03/22 09:55	01/04/22 13:30	5
DCB Decachlorobiphenyl (Surr) (2C)	49	S1- cn	54 - 143	01/03/22 09:55	01/04/22 13:30	5
Tetrachloro-m-xylene (Surr) (1C)	41	cn	20 - 131	01/03/22 09:55	01/04/22 13:30	5
Tetrachloro-m-xylene (Surr) (2C)	44	cn	20 - 131	01/03/22 09:55	01/04/22 13:30	5

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Client Sample ID: BH-16 (0.0-0.5)

Lab Sample ID: 410-67738-2

Date Collected: 12/20/21 11:00

Matrix: Solid

Date Received: 12/21/21 18:23

Percent Solids: 46.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	11	U F1	36	11	ug/Kg	☼	01/03/22 09:55	01/04/22 11:55	1
PCB-1221 (2C)	11	U	36	11	ug/Kg	☼	01/03/22 09:55	01/04/22 11:55	1
PCB-1232 (2C)	11	U	36	11	ug/Kg	☼	01/03/22 09:55	01/04/22 11:55	1
PCB-1242 (2C)	11	U	36	11	ug/Kg	☼	01/03/22 09:55	01/04/22 11:55	1
PCB-1248 (2C)	11	U	36	11	ug/Kg	☼	01/03/22 09:55	01/04/22 11:55	1
PCB-1254 (2C)	14	U	36	14	ug/Kg	☼	01/03/22 09:55	01/04/22 11:55	1
PCB-1260 (2C)	20	J F1	36	14	ug/Kg	☼	01/03/22 09:55	01/04/22 11:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	63		45 - 143	01/03/22 09:55	01/04/22 11:55	1
DCB Decachlorobiphenyl (Surr) (2C)	68		45 - 143	01/03/22 09:55	01/04/22 11:55	1
Tetrachloro-m-xylene (1C)	64		53 - 140	01/03/22 09:55	01/04/22 11:55	1
Tetrachloro-m-xylene (2C)	63		53 - 140	01/03/22 09:55	01/04/22 11:55	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.7	U	8.0	2.7	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Aluminum	27000		32	17	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Arsenic	12		4.8	2.2	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Barium	190		0.80	0.24	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Beryllium	1.5		0.80	0.16	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Cadmium	0.75	J	0.80	0.16	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Calcium	5300		80	19	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Chromium	40		2.4	0.29	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Cobalt	23		0.80	0.23	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Copper	67		3.2	1.2	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Iron	40000		32	9.9	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Lead	42		2.4	0.96	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Magnesium	4800	^2 ^5-	16	6.4	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Manganese	850		1.6	0.83	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Nickel	39		1.6	0.41	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Potassium	3100	^2	80	32	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Selenium	5.1	J	8.0	2.4	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Silver	0.64	U ^5-	1.6	0.64	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Sodium	140	J	160	74	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Thallium	2.1	U	4.8	2.1	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Zinc	210		3.2	1.6	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1
Vanadium	55		1.6	0.68	mg/Kg	☼	12/22/21 13:34	12/27/21 18:43	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.25		0.13	0.053	mg/Kg	☼	12/27/21 14:48	12/28/21 14:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	53.1		1.0	1.0	%			12/22/21 15:33	1

**General Chemistry
Lab: Eurofins Pittsburgh**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	35000	cn	2100	2100	mg/Kg	☼		12/29/21 14:02	1

Eurofins Lancaster Laboratories Env, LLC

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (54-135)	BFB (50-131)	DBFM (50-141)	TOL (52-141)
410-67738-2	BH-16 (0.0-0.5)	101 cn	87 cn	102 cn	109 cn
LCS 410-208918/5	Lab Control Sample	107	100	102	101
LCSD 410-208918/6	Lab Control Sample Dup	106	101	103	101
MB 410-208918/8	Method Blank	107	97	102	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-67738-1	BH-16	104	100	102	100
LCS 410-210498/4	Lab Control Sample	102	101	101	99
LCSD 410-210498/5	Lab Control Sample Dup	103	100	101	99
MB 410-210498/7	Method Blank	105	100	101	98

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TPHd14 (45-108)	NBZ (32-97)	2FP (26-96)	FBP (39-100)	TBP (13-121)	PHL (27-104)
410-67738-2	BH-16 (0.0-0.5)	55 cn	35 cn	39 cn	48 cn	40 cn	42 cn
LCS 410-210970/2-A	Lab Control Sample	81	63	67	71	46	63
MB 410-210970/1-A	Method Blank	88	65	71	74	47	55

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TPHd14 (31-119)	NBZ (22-117)	2FP (10-78)	FBP (35-100)	TBP (10-150)	PHL (10-67)
410-67738-1	BH-16	84	74	29	72	38	23
LCS 410-208801/2-A	Lab Control Sample	88	84	39	81	79	28
LCSD 410-208801/3-A	Lab Control Sample Dup	100	83	44	79	87	32
MB 410-208801/1-A	Method Blank	100	70	30	66	80	21

Surrogate Legend

TPHd14 = p-Terphenyl-d14 (Surr)
NBZ = Nitrobenzene-d5 (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (54-143)	DCB2 (54-143)	TCX1 (20-131)	TCX2 (20-131)
410-67738-2	BH-16 (0.0-0.5)	55 cn	49 S1- cn	41 cn	44 cn
LCS 410-210973/2-A	Lab Control Sample	73	76	56	59
MB 410-210973/1-A	Method Blank	78	84	65	65

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (20-149)	DCB2 (20-149)	TCX1 (20-129)	TCX2 (20-129)
410-67738-1	BH-16	61 cn	56 cn	70 cn	72 cn
LCS 410-209136/2-A	Lab Control Sample	62	60	72	70
LCSD 410-209136/3-A	Lab Control Sample Dup	61	57	72	70
MB 410-209136/1-A	Method Blank	50	49	52	51

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCB1 (45-143)	DCB2 (45-143)	TCX1 (53-140)	TCX2 (53-140)
410-67738-2	BH-16 (0.0-0.5)	63	68	64	63
410-67738-2 MS	BH-16 (0.0-0.5)	66	69	71	68
410-67738-2 MSD	BH-16 (0.0-0.5)	39 S1-	40 S1-	45 S1-	42 S1-
LCS 410-210974/2-A	Lab Control Sample	91	88	98	91
MB 410-210974/1-A	Method Blank	88	84	94	88

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Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

DRAFT

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: MB 410-208918/8
Matrix: Solid
Analysis Batch: 208918

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	0.40	U	5.0	0.40	ug/Kg			12/23/21 16:26	1
trans-1,3-Dichloropropene	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
Ethylbenzene	0.40	U	5.0	0.40	ug/Kg			12/23/21 16:26	1
Styrene	0.40	U	5.0	0.40	ug/Kg			12/23/21 16:26	1
1,4-Dichlorobenzene	0.40	U	5.0	0.40	ug/Kg			12/23/21 16:26	1
1,2-Dibromoethane	0.40	U	5.0	0.40	ug/Kg			12/23/21 16:26	1
1,2-Dichloroethane	0.60	U	5.0	0.60	ug/Kg			12/23/21 16:26	1
4-Methyl-2-pentanone	1.0	U	10	1.0	ug/Kg			12/23/21 16:26	1
Methylcyclohexane	0.60	U	5.0	0.60	ug/Kg			12/23/21 16:26	1
Toluene	0.60	U	5.0	0.60	ug/Kg			12/23/21 16:26	1
Chlorobenzene	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
Cyclohexane	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
1,2,4-Trichlorobenzene	5.0	U	10	5.0	ug/Kg			12/23/21 16:26	1
1,4-Dioxane	37	U	250	37	ug/Kg			12/23/21 16:26	1
Dibromochloromethane	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
Tetrachloroethene	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
cis-1,2-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
trans-1,2-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
Methyl tertiary butyl ether	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
m&p-Xylene	1.0	U	5.0	1.0	ug/Kg			12/23/21 16:26	1
1,3-Dichlorobenzene	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
Carbon tetrachloride	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
2-Hexanone	1.0	U	10	1.0	ug/Kg			12/23/21 16:26	1
Acetone	6.0	U	20	6.0	ug/Kg			12/23/21 16:26	1
Chloroform	0.60	U	5.0	0.60	ug/Kg			12/23/21 16:26	1
Benzene	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
1,1,1-Trichloroethane	0.60	U	5.0	0.60	ug/Kg			12/23/21 16:26	1
Bromomethane	0.70	U	5.0	0.70	ug/Kg			12/23/21 16:26	1
Chloromethane	0.60	U	5.0	0.60	ug/Kg			12/23/21 16:26	1
Bromochloromethane	0.60	U	5.0	0.60	ug/Kg			12/23/21 16:26	1
Chloroethane	1.0	U	5.0	1.0	ug/Kg			12/23/21 16:26	1
Vinyl chloride	0.60	U	5.0	0.60	ug/Kg			12/23/21 16:26	1
Methylene Chloride	2.0	U	5.0	2.0	ug/Kg			12/23/21 16:26	1
Carbon disulfide	0.60	U	5.0	0.60	ug/Kg			12/23/21 16:26	1
Bromoform	5.0	U	10	5.0	ug/Kg			12/23/21 16:26	1
Bromodichloromethane	0.40	U	5.0	0.40	ug/Kg			12/23/21 16:26	1
1,1-Dichloroethane	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
1,1-Dichloroethene	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
Trichlorofluoromethane	0.70	U	5.0	0.70	ug/Kg			12/23/21 16:26	1
Dichlorodifluoromethane	0.60	U	5.0	0.60	ug/Kg			12/23/21 16:26	1
Freon 113	0.60	U	10	0.60	ug/Kg			12/23/21 16:26	1
1,2-Dichloropropane	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
2-Butanone	2.0	U	10	2.0	ug/Kg			12/23/21 16:26	1
1,1,2-Trichloroethane	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
Trichloroethene	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
Methyl acetate	1.0	U	5.0	1.0	ug/Kg			12/23/21 16:26	1
1,1,2,2-Tetrachloroethane	0.40	U	5.0	0.40	ug/Kg			12/23/21 16:26	1
1,2,3-Trichlorobenzene	5.0	U	10	5.0	ug/Kg			12/23/21 16:26	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: MB 410-208918/8
Matrix: Solid
Analysis Batch: 208918

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	0.40	U	5.0	0.40	ug/Kg			12/23/21 16:26	1
1,2-Dichlorobenzene	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
1,2-Dibromo-3-Chloropropane	0.50	U	5.0	0.50	ug/Kg			12/23/21 16:26	1
Isopropylbenzene	0.40	U	5.0	0.40	ug/Kg			12/23/21 16:26	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	107		54 - 135		12/23/21 16:26	1
4-Bromofluorobenzene (Surr)	97		50 - 131		12/23/21 16:26	1
Dibromofluoromethane (Surr)	102		50 - 141		12/23/21 16:26	1
Toluene-d8 (Surr)	99		52 - 141		12/23/21 16:26	1

Lab Sample ID: LCS 410-208918/5
Matrix: Solid
Analysis Batch: 208918

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	20.0	21.3		ug/Kg		106	68 - 122
Ethylbenzene	20.0	20.7		ug/Kg		103	78 - 120
Styrene	20.0	20.2		ug/Kg		101	76 - 120
1,4-Dichlorobenzene	20.0	19.8		ug/Kg		99	80 - 120
1,2-Dibromoethane	20.0	20.1		ug/Kg		100	76 - 120
1,2-Dichloroethane	20.0	20.1		ug/Kg		101	71 - 128
4-Methyl-2-pentanone	250	270		ug/Kg		108	67 - 128
Methylcyclohexane	20.0	22.0		ug/Kg		110	61 - 124
Toluene	20.0	20.4		ug/Kg		102	80 - 120
Chlorobenzene	20.0	20.7		ug/Kg		104	80 - 120
Cyclohexane	20.0	23.1		ug/Kg		116	58 - 126
1,2,4-Trichlorobenzene	20.0	20.0		ug/Kg		100	56 - 130
1,4-Dioxane	500	453		ug/Kg		91	62 - 131
Dibromochloromethane	20.0	20.6		ug/Kg		103	69 - 125
Tetrachloroethene	20.0	20.3		ug/Kg		102	73 - 120
cis-1,2-Dichloroethene	20.0	22.1		ug/Kg		110	80 - 125
trans-1,2-Dichloroethene	20.0	21.2		ug/Kg		106	80 - 126
Methyl tertiary butyl ether	20.0	22.2		ug/Kg		111	72 - 120
m&p-Xylene	40.0	41.9		ug/Kg		105	80 - 120
1,3-Dichlorobenzene	20.0	19.8		ug/Kg		99	75 - 120
Carbon tetrachloride	20.0	20.5		ug/Kg		103	64 - 134
2-Hexanone	250	276		ug/Kg		111	54 - 140
Acetone	250	189		ug/Kg		76	41 - 150
Chloroform	20.0	20.9		ug/Kg		105	80 - 120
Benzene	20.0	21.5		ug/Kg		108	80 - 120
1,1,1-Trichloroethane	20.0	20.2		ug/Kg		101	69 - 123
Bromomethane	20.0	19.6		ug/Kg		98	45 - 140
Chloromethane	20.0	18.2		ug/Kg		91	56 - 120
Bromochloromethane	20.0	21.2		ug/Kg		106	72 - 124
Chloroethane	20.0	20.2		ug/Kg		101	43 - 135
Vinyl chloride	20.0	20.3		ug/Kg		101	52 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: LCS 410-208918/5
Matrix: Solid
Analysis Batch: 208918

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	22.0		ug/Kg		110	76 - 122
Carbon disulfide	20.0	25.3		ug/Kg		127	64 - 133
Bromoform	20.0	20.6		ug/Kg		103	51 - 127
Bromodichloromethane	20.0	21.3		ug/Kg		106	70 - 120
1,1-Dichloroethane	20.0	21.6		ug/Kg		108	79 - 120
1,1-Dichloroethene	20.0	21.9		ug/Kg		110	73 - 129
Trichlorofluoromethane	20.0	19.5		ug/Kg		98	55 - 134
Dichlorodifluoromethane	20.0	19.7		ug/Kg		99	21 - 127
Freon 113	20.0	24.6		ug/Kg		123	64 - 135
1,2-Dichloropropane	20.0	22.0		ug/Kg		110	80 - 120
2-Butanone	250	216		ug/Kg		87	57 - 128
1,1,2-Trichloroethane	20.0	21.5		ug/Kg		107	80 - 120
Trichloroethene	20.0	21.2		ug/Kg		106	80 - 120
Methyl acetate	20.0	23.3		ug/Kg		117	67 - 128
1,1,1,2-Tetrachloroethane	20.0	21.4		ug/Kg		107	69 - 125
1,2,3-Trichlorobenzene	20.0	19.6		ug/Kg		98	57 - 131
o-Xylene	20.0	20.3		ug/Kg		101	75 - 120
1,2-Dichlorobenzene	20.0	20.0		ug/Kg		100	76 - 120
1,2-Dibromo-3-Chloropropane	20.0	18.5		ug/Kg		92	48 - 134
Isopropylbenzene	20.0	20.7		ug/Kg		103	77 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		54 - 135
4-Bromofluorobenzene (Surr)	100		50 - 131
Dibromofluoromethane (Surr)	102		50 - 141
Toluene-d8 (Surr)	101		52 - 141

Lab Sample ID: LCSD 410-208918/6
Matrix: Solid
Analysis Batch: 208918

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	20.0	20.7		ug/Kg		103	66 - 120	1	30
trans-1,3-Dichloropropene	20.0	21.3		ug/Kg		106	68 - 122	0	30
Ethylbenzene	20.0	20.3		ug/Kg		102	78 - 120	2	30
Styrene	20.0	20.0		ug/Kg		100	76 - 120	1	30
1,4-Dichlorobenzene	20.0	20.0		ug/Kg		100	80 - 120	1	30
1,2-Dibromoethane	20.0	20.0		ug/Kg		100	76 - 120	1	30
1,2-Dichloroethane	20.0	20.2		ug/Kg		101	71 - 128	0	30
4-Methyl-2-pentanone	250	279		ug/Kg		112	67 - 128	3	30
Methylcyclohexane	20.0	21.2		ug/Kg		106	61 - 124	4	30
Toluene	20.0	20.2		ug/Kg		101	80 - 120	1	30
Chlorobenzene	20.0	20.2		ug/Kg		101	80 - 120	2	30
Cyclohexane	20.0	22.8		ug/Kg		114	58 - 126	2	30
1,2,4-Trichlorobenzene	20.0	19.9		ug/Kg		99	56 - 130	1	30
1,4-Dioxane	500	450		ug/Kg		90	62 - 131	1	30
Dibromochloromethane	20.0	20.5		ug/Kg		102	69 - 125	1	30
Tetrachloroethene	20.0	19.8		ug/Kg		99	73 - 120	2	30

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: LCSD 410-208918/6
Matrix: Solid
Analysis Batch: 208918

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	20.0	21.7		ug/Kg		108	80 - 125	2	30
trans-1,2-Dichloroethene	20.0	20.6		ug/Kg		103	80 - 126	3	30
Methyl tertiary butyl ether	20.0	22.8		ug/Kg		114	72 - 120	3	30
m&p-Xylene	40.0	40.5		ug/Kg		101	80 - 120	3	30
1,3-Dichlorobenzene	20.0	19.5		ug/Kg		98	75 - 120	1	30
Carbon tetrachloride	20.0	19.9		ug/Kg		99	64 - 134	3	30
2-Hexanone	250	286		ug/Kg		114	54 - 140	3	30
Acetone	250	206		ug/Kg		82	41 - 150	9	30
Chloroform	20.0	20.6		ug/Kg		103	80 - 120	2	30
Benzene	20.0	21.5		ug/Kg		107	80 - 120	0	30
1,1,1-Trichloroethane	20.0	19.9		ug/Kg		99	69 - 123	2	30
Bromomethane	20.0	19.6		ug/Kg		98	45 - 140	0	30
Chloromethane	20.0	19.1		ug/Kg		95	56 - 120	5	30
Bromochloromethane	20.0	20.8		ug/Kg		104	72 - 124	2	30
Chloroethane	20.0	19.7		ug/Kg		99	43 - 135	2	30
Vinyl chloride	20.0	19.0		ug/Kg		95	52 - 120	7	30
Methylene Chloride	20.0	22.1		ug/Kg		110	76 - 122	0	30
Carbon disulfide	20.0	24.7		ug/Kg		123	64 - 133	3	30
Bromoform	20.0	20.5		ug/Kg		103	51 - 127	0	30
Bromodichloromethane	20.0	21.4		ug/Kg		107	70 - 120	0	30
1,1-Dichloroethane	20.0	21.2		ug/Kg		106	79 - 120	2	30
1,1-Dichloroethene	20.0	21.5		ug/Kg		107	73 - 129	2	30
Trichlorofluoromethane	20.0	18.8		ug/Kg		94	55 - 134	4	30
Dichlorodifluoromethane	20.0	19.7		ug/Kg		98	21 - 127	0	30
Freon 113	20.0	23.8		ug/Kg		119	64 - 135	3	30
1,2-Dichloropropane	20.0	21.8		ug/Kg		109	80 - 120	1	30
2-Butanone	250	233		ug/Kg		93	57 - 128	7	30
1,1,2-Trichloroethane	20.0	21.7		ug/Kg		108	80 - 120	1	30
Trichloroethene	20.0	20.3		ug/Kg		102	80 - 120	4	30
Methyl acetate	20.0	22.2		ug/Kg		111	67 - 128	5	30
1,1,2,2-Tetrachloroethane	20.0	21.5		ug/Kg		107	69 - 125	0	30
1,2,3-Trichlorobenzene	20.0	20.3		ug/Kg		102	57 - 131	4	30
o-Xylene	20.0	20.0		ug/Kg		100	75 - 120	1	30
1,2-Dichlorobenzene	20.0	20.0		ug/Kg		100	76 - 120	0	30
1,2-Dibromo-3-Chloropropane	20.0	18.8		ug/Kg		94	48 - 134	1	30
Isopropylbenzene	20.0	20.4		ug/Kg		102	77 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	106		54 - 135
4-Bromofluorobenzene (Surr)	101		50 - 131
Dibromofluoromethane (Surr)	103		50 - 141
Toluene-d8 (Surr)	101		52 - 141

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: MB 410-210498/7
Matrix: Water
Analysis Batch: 210498

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			12/30/21 11:09	1
trans-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			12/30/21 11:09	1
Ethylbenzene	0.40	U	1.0	0.40	ug/L			12/30/21 11:09	1
Styrene	0.30	U	5.0	0.30	ug/L			12/30/21 11:09	1
1,4-Dichlorobenzene	0.30	U	5.0	0.30	ug/L			12/30/21 11:09	1
1,2-Dibromoethane	0.20	U	1.0	0.20	ug/L			12/30/21 11:09	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
4-Methyl-2-pentanone	0.50	U	10	0.50	ug/L			12/30/21 11:09	1
Methylcyclohexane	0.50	U	5.0	0.50	ug/L			12/30/21 11:09	1
Toluene	0.20	U	1.0	0.20	ug/L			12/30/21 11:09	1
Chlorobenzene	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
Cyclohexane	1.0	U	5.0	1.0	ug/L			12/30/21 11:09	1
1,2,4-Trichlorobenzene	0.30	U	5.0	0.30	ug/L			12/30/21 11:09	1
1,4-Dioxane	29	U	250	29	ug/L			12/30/21 11:09	1
Dibromochloromethane	0.20	U	1.0	0.20	ug/L			12/30/21 11:09	1
Tetrachloroethene	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
cis-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
trans-1,2-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
Methyl tertiary butyl ether	0.20	U	1.0	0.20	ug/L			12/30/21 11:09	1
m&p-Xylene	2.0	U	5.0	2.0	ug/L			12/30/21 11:09	1
1,3-Dichlorobenzene	0.30	U	5.0	0.30	ug/L			12/30/21 11:09	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
2-Hexanone	0.40	U	10	0.40	ug/L			12/30/21 11:09	1
Acetone	0.70	U	20	0.70	ug/L			12/30/21 11:09	1
Chloroform	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
Benzene	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
1,1,1-Trichloroethane	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
Bromomethane	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
Chloromethane	0.20	U	1.0	0.20	ug/L			12/30/21 11:09	1
Bromochloromethane	0.20	U	5.0	0.20	ug/L			12/30/21 11:09	1
Chloroethane	0.20	U	1.0	0.20	ug/L			12/30/21 11:09	1
Vinyl chloride	0.20	U	1.0	0.20	ug/L			12/30/21 11:09	1
Methylene Chloride	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
Carbon disulfide	0.30	U	5.0	0.30	ug/L			12/30/21 11:09	1
Bromoform	1.0	U	4.0	1.0	ug/L			12/30/21 11:09	1
Bromodichloromethane	0.20	U	1.0	0.20	ug/L			12/30/21 11:09	1
1,1-Dichloroethane	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
1,1-Dichloroethene	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
Trichlorofluoromethane	0.20	U	1.0	0.20	ug/L			12/30/21 11:09	1
Dichlorodifluoromethane	0.20	U	1.0	0.20	ug/L			12/30/21 11:09	1
Freon 113	0.30	U	10	0.30	ug/L			12/30/21 11:09	1
1,2-Dichloropropane	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
2-Butanone	0.50	U	10	0.50	ug/L			12/30/21 11:09	1
1,1,2-Trichloroethane	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
Trichloroethene	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
Methyl acetate	0.30	U	5.0	0.30	ug/L			12/30/21 11:09	1
1,1,2,2-Tetrachloroethane	0.30	U	1.0	0.30	ug/L			12/30/21 11:09	1
1,2,3-Trichlorobenzene	0.40	U	5.0	0.40	ug/L			12/30/21 11:09	1

QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: MB 410-210498/7
Matrix: Water
Analysis Batch: 210498

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	0.40	U	1.0	0.40	ug/L			12/30/21 11:09	1
1,2-Dichlorobenzene	0.20	U	5.0	0.20	ug/L			12/30/21 11:09	1
1,2-Dibromo-3-Chloropropane	0.30	U	5.0	0.30	ug/L			12/30/21 11:09	1
Isopropylbenzene	0.20	U	5.0	0.20	ug/L			12/30/21 11:09	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		12/30/21 11:09	1
4-Bromofluorobenzene (Surr)	100		80 - 120		12/30/21 11:09	1
Dibromofluoromethane (Surr)	101		80 - 120		12/30/21 11:09	1
Toluene-d8 (Surr)	98		80 - 120		12/30/21 11:09	1

Lab Sample ID: LCS 410-210498/4
Matrix: Water
Analysis Batch: 210498

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	20.0	19.4		ug/L		97	67 - 120
Ethylbenzene	20.0	18.7		ug/L		94	80 - 120
Styrene	20.0	18.9		ug/L		94	80 - 120
1,4-Dichlorobenzene	20.0	18.7		ug/L		94	80 - 120
1,2-Dibromoethane	20.0	18.5		ug/L		93	77 - 120
1,2-Dichloroethane	20.0	19.0		ug/L		95	73 - 124
4-Methyl-2-pentanone	250	272		ug/L		109	62 - 133
Methylcyclohexane	20.0	18.7		ug/L		93	67 - 121
Toluene	20.0	18.7		ug/L		93	80 - 120
Chlorobenzene	20.0	18.7		ug/L		94	80 - 120
Cyclohexane	20.0	19.1		ug/L		96	68 - 126
1,2,4-Trichlorobenzene	20.0	19.3		ug/L		96	63 - 120
1,4-Dioxane	500	515		ug/L		103	63 - 146
Dibromochloromethane	20.0	19.3		ug/L		96	71 - 120
Tetrachloroethene	20.0	19.0		ug/L		95	80 - 120
cis-1,2-Dichloroethene	20.0	19.3		ug/L		96	80 - 125
trans-1,2-Dichloroethene	20.0	20.3		ug/L		101	80 - 126
Methyl tertiary butyl ether	20.0	21.9		ug/L		110	69 - 122
m&p-Xylene	40.0	37.6		ug/L		94	80 - 120
1,3-Dichlorobenzene	20.0	18.1		ug/L		91	80 - 120
Carbon tetrachloride	20.0	18.7		ug/L		93	64 - 134
2-Hexanone	250	274		ug/L		110	56 - 135
Acetone	250	233		ug/L		93	54 - 157
Chloroform	20.0	18.8		ug/L		94	80 - 120
Benzene	20.0	19.4		ug/L		97	80 - 120
1,1,1-Trichloroethane	20.0	18.6		ug/L		93	67 - 126
Bromomethane	20.0	19.7		ug/L		98	53 - 128
Chloromethane	20.0	24.9	*+	ug/L		125	56 - 121
Bromochloromethane	20.0	19.4		ug/L		97	80 - 120
Chloroethane	20.0	21.7		ug/L		109	55 - 123
Vinyl chloride	20.0	21.8		ug/L		109	56 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: LCS 410-210498/4
Matrix: Water
Analysis Batch: 210498

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	22.0		ug/L		110	80 - 120
Carbon disulfide	20.0	25.7		ug/L		128	65 - 128
Bromoform	20.0	20.3		ug/L		102	51 - 120
Bromodichloromethane	20.0	19.5		ug/L		97	71 - 120
1,1-Dichloroethane	20.0	19.4		ug/L		97	80 - 120
1,1-Dichloroethene	20.0	21.2		ug/L		106	80 - 131
Trichlorofluoromethane	20.0	19.9		ug/L		100	55 - 135
Dichlorodifluoromethane	20.0	23.0		ug/L		115	41 - 127
Freon 113	20.0	22.0		ug/L		110	73 - 139
1,2-Dichloropropane	20.0	19.3		ug/L		96	80 - 120
2-Butanone	250	268		ug/L		107	59 - 135
1,1,2-Trichloroethane	20.0	18.8		ug/L		94	80 - 120
Trichloroethene	20.0	18.6		ug/L		93	80 - 120
Methyl acetate	20.0	24.9		ug/L		124	54 - 136
1,1,1,2-Tetrachloroethane	20.0	17.7		ug/L		88	72 - 120
1,2,3-Trichlorobenzene	20.0	19.7		ug/L		98	66 - 120
o-Xylene	20.0	18.2		ug/L		91	80 - 120
1,2-Dichlorobenzene	20.0	18.0		ug/L		90	80 - 120
1,2-Dibromo-3-Chloropropane	20.0	16.7		ug/L		84	47 - 131
Isopropylbenzene	20.0	19.0		ug/L		95	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	101		80 - 120
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: LCSD 410-210498/5
Matrix: Water
Analysis Batch: 210498

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	20.0	18.1		ug/L		91	75 - 120	5	30
trans-1,3-Dichloropropene	20.0	18.6		ug/L		93	67 - 120	5	30
Ethylbenzene	20.0	17.8		ug/L		89	80 - 120	5	30
Styrene	20.0	18.1		ug/L		90	80 - 120	4	30
1,4-Dichlorobenzene	20.0	17.3		ug/L		87	80 - 120	8	30
1,2-Dibromoethane	20.0	17.8		ug/L		89	77 - 120	4	30
1,2-Dichloroethane	20.0	17.7		ug/L		89	73 - 124	7	30
4-Methyl-2-pentanone	250	262		ug/L		105	62 - 133	4	30
Methylcyclohexane	20.0	17.9		ug/L		90	67 - 121	4	30
Toluene	20.0	17.8		ug/L		89	80 - 120	5	30
Chlorobenzene	20.0	18.1		ug/L		90	80 - 120	4	30
Cyclohexane	20.0	18.7		ug/L		93	68 - 126	2	30
1,2,4-Trichlorobenzene	20.0	17.8		ug/L		89	63 - 120	8	30
1,4-Dioxane	500	494		ug/L		99	63 - 146	4	30
Dibromochloromethane	20.0	18.2		ug/L		91	71 - 120	6	30
Tetrachloroethene	20.0	18.6		ug/L		93	80 - 120	2	30

Eurofins Lancaster Laboratories Env, LLC

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: LCSD 410-210498/5
Matrix: Water
Analysis Batch: 210498

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	20.0	19.2		ug/L		96	80 - 125	0	30
trans-1,2-Dichloroethene	20.0	19.6		ug/L		98	80 - 126	3	30
Methyl tertiary butyl ether	20.0	21.2		ug/L		106	69 - 122	3	30
m&p-Xylene	40.0	35.6		ug/L		89	80 - 120	5	30
1,3-Dichlorobenzene	20.0	17.1		ug/L		86	80 - 120	6	30
Carbon tetrachloride	20.0	17.7		ug/L		88	64 - 134	6	30
2-Hexanone	250	265		ug/L		106	56 - 135	3	30
Acetone	250	211		ug/L		84	54 - 157	10	30
Chloroform	20.0	18.0		ug/L		90	80 - 120	4	30
Benzene	20.0	18.5		ug/L		92	80 - 120	5	30
1,1,1-Trichloroethane	20.0	17.5		ug/L		87	67 - 126	7	30
Bromomethane	20.0	19.0		ug/L		95	53 - 128	3	30
Chloromethane	20.0	23.9		ug/L		120	56 - 121	4	30
Bromochloromethane	20.0	18.0		ug/L		90	80 - 120	7	30
Chloroethane	20.0	20.8		ug/L		104	55 - 123	4	30
Vinyl chloride	20.0	20.6		ug/L		103	56 - 120	6	30
Methylene Chloride	20.0	20.8		ug/L		104	80 - 120	5	30
Carbon disulfide	20.0	24.4		ug/L		122	65 - 128	5	30
Bromoform	20.0	19.4		ug/L		97	51 - 120	5	30
Bromodichloromethane	20.0	18.5		ug/L		92	71 - 120	5	30
1,1-Dichloroethane	20.0	18.7		ug/L		94	80 - 120	3	30
1,1-Dichloroethene	20.0	20.1		ug/L		101	80 - 131	5	30
Trichlorofluoromethane	20.0	18.8		ug/L		94	55 - 135	6	30
Dichlorodifluoromethane	20.0	22.0		ug/L		110	41 - 127	5	30
Freon 113	20.0	21.3		ug/L		106	73 - 139	3	30
1,2-Dichloropropane	20.0	18.6		ug/L		93	80 - 120	4	30
2-Butanone	250	270		ug/L		108	59 - 135	1	30
1,1,2-Trichloroethane	20.0	18.0		ug/L		90	80 - 120	5	30
Trichloroethene	20.0	17.6		ug/L		88	80 - 120	6	30
Methyl acetate	20.0	27.4	*+	ug/L		137	54 - 136	10	30
1,1,1,2-Tetrachloroethane	20.0	16.9		ug/L		85	72 - 120	4	30
1,2,3-Trichlorobenzene	20.0	18.1		ug/L		90	66 - 120	8	30
o-Xylene	20.0	17.4		ug/L		87	80 - 120	5	30
1,2-Dichlorobenzene	20.0	17.1		ug/L		86	80 - 120	5	30
1,2-Dibromo-3-Chloropropane	20.0	16.0		ug/L		80	47 - 131	5	30
Isopropylbenzene	20.0	18.2		ug/L		91	80 - 120	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	103		80 - 120
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	101		80 - 120
Toluene-d8 (Surr)	99		80 - 120

QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: MB 410-208801/1-A
Matrix: Water
Analysis Batch: 212256

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 208801

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1'-Biphenyl	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
1,2,4,5-Tetrachlorobenzene	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
2,2'-oxybis[1-chloropropane]	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
2,3,4,6-Tetrachlorophenol	1.0	U	5.0	1.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
2,4,5-Trichlorophenol	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
2,4,6-Trichlorophenol	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
2,4-Dichlorophenol	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
2,4-Dimethylphenol	3.0	U	10	3.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
2,4-Dinitrophenol	14	U	30	14	ug/L		12/22/21 22:35	01/06/22 09:57	1
2,4-Dinitrotoluene	1.0	U	5.0	1.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
2,6-Dinitrotoluene	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
2-Chloronaphthalene	0.40	U	1.0	0.40	ug/L		12/22/21 22:35	01/06/22 09:57	1
2-Chlorophenol	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
2-Methylnaphthalene	0.10	U	0.50	0.10	ug/L		12/22/21 22:35	01/06/22 09:57	1
2-Methylphenol	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
2-Nitroaniline	1.0	U	5.0	1.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
2-Nitrophenol	1.0	U	5.0	1.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
3,3'-Dichlorobenzidine	4.0	U	10	4.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
3-Nitroaniline	2.0	U	5.0	2.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
4,6-Dinitro-2-methylphenol	8.0	U	21	8.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
4-Bromophenyl-phenylether	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
4-Chloro-3-methylphenol	1.0	U	5.0	1.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
4-Methylphenol	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
4-Nitroaniline	0.90	U	3.0	0.90	ug/L		12/22/21 22:35	01/06/22 09:57	1
4-Nitrophenol	10	U	30	10	ug/L		12/22/21 22:35	01/06/22 09:57	1
Acenaphthene	0.10	U	0.50	0.10	ug/L		12/22/21 22:35	01/06/22 09:57	1
Acenaphthylene	0.10	U	0.50	0.10	ug/L		12/22/21 22:35	01/06/22 09:57	1
Acetophenone	1.0	U	5.0	1.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
Anthracene	0.10	U	0.50	0.10	ug/L		12/22/21 22:35	01/06/22 09:57	1
Atrazine	1.0	U	5.0	1.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
Benzaldehyde	1.0	U	5.0	1.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
Benzo[a]anthracene	0.10	U	0.50	0.10	ug/L		12/22/21 22:35	01/06/22 09:57	1
Benzo[a]pyrene	0.11	U	0.50	0.11	ug/L		12/22/21 22:35	01/06/22 09:57	1
Benzo[b]fluoranthene	0.10	U	0.50	0.10	ug/L		12/22/21 22:35	01/06/22 09:57	1
Benzo[g,h,i]perylene	0.10	U	0.50	0.10	ug/L		12/22/21 22:35	01/06/22 09:57	1
Benzo[k]fluoranthene	0.10	U	0.50	0.10	ug/L		12/22/21 22:35	01/06/22 09:57	1
Bis(2-chloroethoxy)methane	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
Bis(2-chloroethyl)ether	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
Bis(2-ethylhexyl) phthalate	2.0	U	5.0	2.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
Butylbenzylphthalate	2.0	U	5.0	2.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
Caprolactam	3.0	U	7.0	3.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
Carbazole	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
Chrysene	0.10	U	0.50	0.10	ug/L		12/22/21 22:35	01/06/22 09:57	1
Di-n-butyl phthalate	2.0	U	5.0	2.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
Di-n-octyl phthalate	5.0	U	11	5.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
Dibenz(a,h)anthracene	0.10	U	0.50	0.10	ug/L		12/22/21 22:35	01/06/22 09:57	1
Dibenzofuran	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
Diethyl phthalate	2.0	U	5.0	2.0	ug/L		12/22/21 22:35	01/06/22 09:57	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: MB 410-208801/1-A
Matrix: Water
Analysis Batch: 212256

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 208801

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dimethyl phthalate	2.0	U	5.0	2.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
Fluoranthene	0.10	U	0.50	0.10	ug/L		12/22/21 22:35	01/06/22 09:57	1
Fluorene	0.12	U	0.50	0.12	ug/L		12/22/21 22:35	01/06/22 09:57	1
Hexachlorobenzene	0.11	U	0.50	0.11	ug/L		12/22/21 22:35	01/06/22 09:57	1
Hexachlorobutadiene	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
Hexachlorocyclopentadiene	5.0	U	11	5.0	ug/L		12/22/21 22:35	01/06/22 09:57	1
Hexachloroethane	0.50	U	5.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
Indeno[1,2,3-cd]pyrene	0.11	U	0.50	0.11	ug/L		12/22/21 22:35	01/06/22 09:57	1
Isophorone	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
N-Nitrosodi-n-propylamine	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
N-Nitrosodiphenylamine	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
Naphthalene	0.10	U	0.50	0.10	ug/L		12/22/21 22:35	01/06/22 09:57	1
Nitrobenzene	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
Phenanthrene	0.11	U	0.50	0.11	ug/L		12/22/21 22:35	01/06/22 09:57	1
Phenol	0.50	U	2.0	0.50	ug/L		12/22/21 22:35	01/06/22 09:57	1
Pyrene	0.10	U	0.50	0.10	ug/L		12/22/21 22:35	01/06/22 09:57	1
Pentachlorophenol	1.0	U	5.0	1.0	ug/L		12/22/21 22:35	01/06/22 09:57	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
<i>p</i> -Terphenyl-d14 (Surr)	100		31 - 119	12/22/21 22:35	01/06/22 09:57	1
Nitrobenzene-d5 (Surr)	70		22 - 117	12/22/21 22:35	01/06/22 09:57	1
2-Fluorophenol (Surr)	30		10 - 78	12/22/21 22:35	01/06/22 09:57	1
2-Fluorobiphenyl (Surr)	66		35 - 100	12/22/21 22:35	01/06/22 09:57	1
2,4,6-Tribromophenol (Surr)	80		10 - 150	12/22/21 22:35	01/06/22 09:57	1
Phenol-d5 (Surr)	21		10 - 67	12/22/21 22:35	01/06/22 09:57	1

Lab Sample ID: LCS 410-208801/2-A
Matrix: Water
Analysis Batch: 212256

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208801

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2,4,5-Tetrachlorobenzene	50.0	41.6		ug/L		83	39 - 120
2,2'-oxybis[1-chloropropane]	50.0	39.1		ug/L		78	48 - 120
2,3,4,6-Tetrachlorophenol	50.0	40.3		ug/L		81	65 - 123
2,4,5-Trichlorophenol	50.0	37.9		ug/L		76	66 - 120
2,4,6-Trichlorophenol	50.0	37.6		ug/L		75	63 - 120
2,4-Dichlorophenol	50.0	35.1		ug/L		70	64 - 120
2,4-Dimethylphenol	50.0	36.5		ug/L		73	64 - 107
2,4-Dinitrophenol	100	77.9		ug/L		78	33 - 132
2,4-Dinitrotoluene	50.0	46.8		ug/L		94	71 - 120
2,6-Dinitrotoluene	50.0	47.2		ug/L		94	72 - 120
2-Chloronaphthalene	50.0	42.8		ug/L		86	51 - 120
2-Chlorophenol	50.0	28.6		ug/L		57	57 - 120
2-Methylnaphthalene	50.0	42.6		ug/L		85	53 - 120
2-Methylphenol	50.0	32.5		ug/L		65	51 - 120
2-Nitroaniline	50.0	43.7		ug/L		87	67 - 120
2-Nitrophenol	50.0	33.6		ug/L		67	59 - 120

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: LCS 410-208801/2-A
Matrix: Water
Analysis Batch: 212256

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208801

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3,3'-Dichlorobenzidine	100	66.4		ug/L		66	42 - 107
3-Nitroaniline	50.0	29.6		ug/L		59	52 - 120
4,6-Dinitro-2-methylphenol	100	79.3		ug/L		79	53 - 123
4-Bromophenyl-phenylether	50.0	46.5		ug/L		93	66 - 120
4-Chloro-3-methylphenol	50.0	36.1		ug/L		72	60 - 120
4-Methylphenol	50.0	29.7		ug/L		59	44 - 120
4-Nitroaniline	50.0	38.8		ug/L		78	60 - 120
4-Nitrophenol	100	40.2		ug/L		40	19 - 120
Acenaphthene	50.0	43.8		ug/L		88	59 - 120
Acenaphthylene	50.0	45.8		ug/L		92	63 - 121
Acetophenone	50.0	52.7		ug/L		105	62 - 120
Anthracene	50.0	46.7		ug/L		93	73 - 120
Atrazine	50.0	45.9		ug/L		92	66 - 122
Benzaldehyde	50.0	36.5		ug/L		73	45 - 120
Benzo[a]anthracene	50.0	49.3		ug/L		99	74 - 120
Benzo[a]pyrene	50.0	44.9		ug/L		90	60 - 116
Benzo[b]fluoranthene	50.0	42.9		ug/L		86	71 - 120
Benzo[g,h,i]perylene	50.0	39.7		ug/L		79	60 - 120
Benzo[k]fluoranthene	50.0	44.1		ug/L		88	78 - 120
Bis(2-chloroethoxy)methane	50.0	47.2		ug/L		94	62 - 120
Bis(2-chloroethyl)ether	50.0	42.0		ug/L		84	62 - 120
Bis(2-ethylhexyl) phthalate	50.0	50.8		ug/L		102	60 - 120
Butylbenzylphthalate	50.0	32.0		ug/L		64	11 - 125
Caprolactam	50.0	9.73		ug/L		19	12 - 120
Carbazole	50.0	48.3		ug/L		97	74 - 120
Chrysene	50.0	48.5		ug/L		97	76 - 120
Di-n-butyl phthalate	50.0	42.5		ug/L		85	53 - 120
Di-n-octyl phthalate	50.0	38.0		ug/L		76	59 - 120
Dibenz(a,h)anthracene	50.0	40.4		ug/L		81	62 - 120
Dibenzofuran	50.0	46.3		ug/L		93	60 - 112
Diethyl phthalate	50.0	37.2		ug/L		74	27 - 120
Dimethyl phthalate	50.0	28.6		ug/L		57	10 - 124
Fluoranthene	50.0	51.8		ug/L		104	74 - 120
Fluorene	50.0	46.7		ug/L		93	64 - 120
Hexachlorobenzene	50.0	48.0		ug/L		96	65 - 120
Hexachlorobutadiene	50.0	37.5		ug/L		75	24 - 120
Hexachlorocyclopentadiene	50.0	26.7		ug/L		53	10 - 120
Hexachloroethane	50.0	31.8		ug/L		64	22 - 120
Indeno[1,2,3-cd]pyrene	50.0	42.1		ug/L		84	52 - 121
Isophorone	50.0	46.2		ug/L		92	70 - 120
N-Nitrosodi-n-propylamine	50.0	44.5		ug/L		89	63 - 120
N-Nitrosodiphenylamine	42.5	38.8		ug/L		91	72 - 120
Naphthalene	50.0	41.8		ug/L		84	51 - 102
Nitrobenzene	50.0	46.0		ug/L		92	59 - 120
Phenanthrene	50.0	46.0		ug/L		92	72 - 120
Phenol	50.0	15.6		ug/L		31	22 - 120
Pyrene	50.0	43.5		ug/L		87	73 - 120
Pentachlorophenol	100	84.8		ug/L		85	48 - 123

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: LCS 410-208801/2-A
Matrix: Water
Analysis Batch: 212256

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208801

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>p</i> -Terphenyl-d14 (Surr)	88		31 - 119
Nitrobenzene-d5 (Surr)	84		22 - 117
2-Fluorophenol (Surr)	39		10 - 78
2-Fluorobiphenyl (Surr)	81		35 - 100
2,4,6-Tribromophenol (Surr)	79		10 - 150
Phenol-d5 (Surr)	28		10 - 67

Lab Sample ID: LCSD 410-208801/3-A
Matrix: Water
Analysis Batch: 212256

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 208801

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	50.0	42.8		ug/L		86	53 - 120	2	30
1,2,4,5-Tetrachlorobenzene	50.0	40.2		ug/L		80	39 - 120	4	30
2,2'-oxybis[1-chloropropane]	50.0	38.9		ug/L		78	48 - 120	1	30
2,3,4,6-Tetrachlorophenol	50.0	45.5		ug/L		91	65 - 123	12	30
2,4,5-Trichlorophenol	50.0	40.8		ug/L		82	66 - 120	8	30
2,4,6-Trichlorophenol	50.0	41.1		ug/L		82	63 - 120	9	30
2,4-Dichlorophenol	50.0	39.2		ug/L		78	64 - 120	11	30
2,4-Dimethylphenol	50.0	37.9		ug/L		76	64 - 107	4	30
2,4-Dinitrophenol	100	88.5		ug/L		89	33 - 132	13	30
2,4-Dinitrotoluene	50.0	47.9		ug/L		96	71 - 120	2	30
2,6-Dinitrotoluene	50.0	47.4		ug/L		95	72 - 120	0	30
2-Chloronaphthalene	50.0	41.5		ug/L		83	51 - 120	3	30
2-Chlorophenol	50.0	32.5		ug/L		65	57 - 120	13	30
2-Methylnaphthalene	50.0	41.8		ug/L		84	53 - 120	2	30
2-Methylphenol	50.0	37.2		ug/L		74	51 - 120	14	30
2-Nitroaniline	50.0	45.9		ug/L		92	67 - 120	5	30
2-Nitrophenol	50.0	38.1		ug/L		76	59 - 120	13	30
3,3'-Dichlorobenzidine	100	61.4		ug/L		61	42 - 107	8	30
3-Nitroaniline	50.0	29.9		ug/L		60	52 - 120	1	30
4,6-Dinitro-2-methylphenol	100	88.3		ug/L		88	53 - 123	11	30
4-Bromophenyl-phenylether	50.0	46.8		ug/L		94	66 - 120	1	30
4-Chloro-3-methylphenol	50.0	38.8		ug/L		78	60 - 120	7	30
4-Methylphenol	50.0	32.2		ug/L		64	44 - 120	8	30
4-Nitroaniline	50.0	39.4		ug/L		79	60 - 120	1	30
4-Nitrophenol	100	50.5		ug/L		50	19 - 120	23	30
Acenaphthene	50.0	43.2		ug/L		86	59 - 120	1	30
Acenaphthylene	50.0	45.5		ug/L		91	63 - 121	1	30
Acetophenone	50.0	42.5		ug/L		85	62 - 120	21	30
Anthracene	50.0	45.8		ug/L		92	73 - 120	2	30
Atrazine	50.0	43.9		ug/L		88	66 - 122	4	30
Benzaldehyde	50.0	35.6		ug/L		71	45 - 120	2	30
Benzo[a]anthracene	50.0	51.7		ug/L		103	74 - 120	5	30
Benzo[a]pyrene	50.0	47.8		ug/L		96	60 - 116	6	30
Benzo[b]fluoranthene	50.0	45.0		ug/L		90	71 - 120	5	30
Benzo[g,h,i]perylene	50.0	43.6		ug/L		87	60 - 120	9	30
Benzo[k]fluoranthene	50.0	46.7		ug/L		93	78 - 120	6	30

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: LCSD 410-208801/3-A
Matrix: Water
Analysis Batch: 212256

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 208801

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bis(2-chloroethoxy)methane	50.0	46.8		ug/L		94	62 - 120	1	30
Bis(2-chloroethyl)ether	50.0	43.2		ug/L		86	62 - 120	3	30
Bis(2-ethylhexyl) phthalate	50.0	44.8		ug/L		90	60 - 120	13	30
Butylbenzylphthalate	50.0	32.0		ug/L		64	11 - 125	0	30
Caprolactam	50.0	11.1		ug/L		22	12 - 120	13	30
Carbazole	50.0	48.6		ug/L		97	74 - 120	1	30
Chrysene	50.0	51.9		ug/L		104	76 - 120	7	30
Di-n-butyl phthalate	50.0	40.4		ug/L		81	53 - 120	5	30
Di-n-octyl phthalate	50.0	41.3		ug/L		83	59 - 120	8	30
Dibenz(a,h)anthracene	50.0	44.1		ug/L		88	62 - 120	9	30
Dibenzofuran	50.0	46.2		ug/L		92	60 - 112	0	30
Diethyl phthalate	50.0	34.9		ug/L		70	27 - 120	6	30
Dimethyl phthalate	50.0	25.9		ug/L		52	10 - 124	10	30
Fluoranthene	50.0	51.9		ug/L		104	74 - 120	0	30
Fluorene	50.0	46.1		ug/L		92	64 - 120	1	30
Hexachlorobenzene	50.0	47.7		ug/L		95	65 - 120	1	30
Hexachlorobutadiene	50.0	36.1		ug/L		72	24 - 120	4	30
Hexachlorocyclopentadiene	50.0	25.7		ug/L		51	10 - 120	4	30
Hexachloroethane	50.0	31.0		ug/L		62	22 - 120	3	30
Indeno[1,2,3-cd]pyrene	50.0	44.0		ug/L		88	52 - 121	4	30
Isophorone	50.0	46.1		ug/L		92	70 - 120	0	30
N-Nitrosodi-n-propylamine	50.0	44.0		ug/L		88	63 - 120	1	30
N-Nitrosodiphenylamine	42.5	38.4		ug/L		90	72 - 120	1	30
Naphthalene	50.0	41.0		ug/L		82	51 - 102	2	30
Nitrobenzene	50.0	45.7		ug/L		91	59 - 120	1	30
Phenanthrene	50.0	44.7		ug/L		89	72 - 120	3	30
Phenol	50.0	17.4		ug/L		35	22 - 120	11	30
Pyrene	50.0	45.4		ug/L		91	73 - 120	4	30
Pentachlorophenol	100	91.0		ug/L		91	48 - 123	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
p-Terphenyl-d14 (Surr)	100		31 - 119
Nitrobenzene-d5 (Surr)	83		22 - 117
2-Fluorophenol (Surr)	44		10 - 78
2-Fluorobiphenyl (Surr)	79		35 - 100
2,4,6-Tribromophenol (Surr)	87		10 - 150
Phenol-d5 (Surr)	32		10 - 67

Lab Sample ID: MB 410-210970/1-A
Matrix: Solid
Analysis Batch: 211051

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 210970

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1'-Biphenyl	17	U	37	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
1,2,4,5-Tetrachlorobenzene	17	U	37	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
2,2'-oxybis[1-chloropropane]	20	U	43	20	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
2,3,4,6-Tetrachlorophenol	67	U	170	67	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
2,4,5-Trichlorophenol	17	U	37	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1

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QC Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: MB 410-210970/1-A
Matrix: Solid
Analysis Batch: 211051

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 210970

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,4,6-Trichlorophenol	17	U	37	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
2,4-Dichlorophenol	20	U	43	20	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
2,4-Dimethylphenol	17	U	37	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
2,4-Dinitrophenol	170	U	1000	170	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
2,4-Dinitrotoluene	33	U	170	33	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
2,6-Dinitrotoluene	17	U	37	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
2-Chloronaphthalene	13	U	33	13	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
2-Chlorophenol	17	U	37	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
2-Methylnaphthalene	5.0	U	17	5.0	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
2-Methylphenol	20	U	50	20	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
2-Nitroaniline	17	U	50	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
2-Nitrophenol	20	U	50	20	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
3,3'-Dichlorobenzidine	33	U	170	33	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
3-Nitroaniline	33	U	170	33	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
4,6-Dinitro-2-methylphenol	170	U	500	170	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
4-Bromophenyl-phenylether	17	U	37	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
4-Chloro-3-methylphenol	20	U	50	20	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
4-Methylphenol	17	U	50	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
4-Nitroaniline	33	U	170	33	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
4-Nitrophenol	170	U	500	170	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Acenaphthene	3.3	U	17	3.3	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Acenaphthylene	4.0	U	17	4.0	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Acetophenone	17	U	50	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Anthracene	3.3	U	17	3.3	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Atrazine	67	U	170	67	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Benzaldehyde	33	U	170	33	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Benzo[a]anthracene	3.3	U	17	3.3	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Benzo[a]pyrene	3.3	U	17	3.3	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Benzo[b]fluoranthene	3.3	U	17	3.3	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Benzo[g,h,i]perylene	3.3	U	17	3.3	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Benzo[k]fluoranthene	3.3	U	17	3.3	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Bis(2-chloroethoxy)methane	17	U	37	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Bis(2-chloroethyl)ether	17	U	37	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Bis(2-ethylhexyl) phthalate	67	U	170	67	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Butylbenzylphthalate	67	U	170	67	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Caprolactam	33	U	170	33	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Carbazole	17	U	37	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Chrysene	3.3	U	17	3.3	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Di-n-butyl phthalate	67	U	170	67	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Di-n-octyl phthalate	67	U	170	67	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Dibenz(a,h)anthracene	6.7	U	17	6.7	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Dibenzofuran	17	U	37	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Diethyl phthalate	67	U	170	67	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Dimethyl phthalate	67	U	170	67	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Fluoranthene	3.3	U	17	3.3	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Fluorene	3.3	U	17	3.3	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Hexachlorobenzene	6.7	U	17	6.7	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Hexachlorobutadiene	20	U	50	20	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Hexachlorocyclopentadiene	170	U	500	170	ug/Kg		01/03/22 09:59	01/03/22 16:42	1

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: MB 410-210970/1-A
Matrix: Solid
Analysis Batch: 211051

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 210970

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hexachloroethane	33	U	170	33	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Indeno[1,2,3-cd]pyrene	4.0	U	17	4.0	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Isophorone	17	U	67	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
N-Nitrosodi-n-propylamine	33	U	67	33	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
N-Nitrosodiphenylamine	17	U	37	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Naphthalene	6.7	U	17	6.7	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Nitrobenzene	17	U	37	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Phenanthrene	4.0	U	17	4.0	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Phenol	17	U	37	17	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Pyrene	3.3	U	17	3.3	ug/Kg		01/03/22 09:59	01/03/22 16:42	1
Pentachlorophenol	67	U	170	67	ug/Kg		01/03/22 09:59	01/03/22 16:42	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
p-Terphenyl-d14 (Surr)	88		45 - 108	01/03/22 09:59	01/03/22 16:42	1
Nitrobenzene-d5 (Surr)	65		32 - 97	01/03/22 09:59	01/03/22 16:42	1
2-Fluorophenol (Surr)	71		26 - 96	01/03/22 09:59	01/03/22 16:42	1
2-Fluorobiphenyl (Surr)	74		39 - 100	01/03/22 09:59	01/03/22 16:42	1
2,4,6-Tribromophenol (Surr)	47		13 - 121	01/03/22 09:59	01/03/22 16:42	1
Phenol-d5 (Surr)	55		27 - 104	01/03/22 09:59	01/03/22 16:42	1

Lab Sample ID: LCS 410-210970/2-A
Matrix: Solid
Analysis Batch: 211051

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 210970

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2,4,5-Tetrachlorobenzene	1670	1240		ug/Kg		75	60 - 120
2,2'-oxybis[1-chloropropane]	1670	890		ug/Kg		53	48 - 120
2,3,4,6-Tetrachlorophenol	1670	1110		ug/Kg		67	59 - 120
2,4,5-Trichlorophenol	1670	1410		ug/Kg		85	61 - 120
2,4,6-Trichlorophenol	1670	1090		ug/Kg		66	59 - 120
2,4-Dichlorophenol	1670	1240		ug/Kg		75	62 - 120
2,4-Dimethylphenol	1670	1200		ug/Kg		72	65 - 120
2,4-Dinitrophenol	3330	2050		ug/Kg		61	44 - 120
2,4-Dinitrotoluene	1670	1280		ug/Kg		77	68 - 120
2,6-Dinitrotoluene	1670	1380		ug/Kg		83	67 - 120
2-Chloronaphthalene	1670	1290		ug/Kg		77	61 - 120
2-Chlorophenol	1670	1190		ug/Kg		71	59 - 120
2-Methylnaphthalene	1670	1530		ug/Kg		92	63 - 120
2-Methylphenol	1670	1080		ug/Kg		65	63 - 120
2-Nitroaniline	1670	1450		ug/Kg		87	64 - 120
2-Nitrophenol	1670	1320		ug/Kg		79	55 - 120
3,3'-Dichlorobenzidine	3330	734		ug/Kg		22	19 - 120
3-Nitroaniline	1670	848		ug/Kg		51	31 - 120
4,6-Dinitro-2-methylphenol	3330	2860		ug/Kg		86	59 - 120
4-Bromophenyl-phenylether	1670	1410		ug/Kg		85	65 - 120
4-Chloro-3-methylphenol	1670	1330		ug/Kg		80	67 - 120
4-Methylphenol	1670	1030		ug/Kg		62	56 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: LCS 410-210970/2-A

Matrix: Solid

Analysis Batch: 211051

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 210970

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Nitroaniline	1670	1060		ug/Kg		64	59 - 120
4-Nitrophenol	3330	2020		ug/Kg		61	58 - 120
Acenaphthene	1670	1230		ug/Kg		74	61 - 120
Acenaphthylene	1670	1330		ug/Kg		80	69 - 120
Acetophenone	1670	1100		ug/Kg		66	54 - 120
Anthracene	1670	1430		ug/Kg		86	75 - 120
Atrazine	1670	1280		ug/Kg		77	63 - 127
Benzaldehyde	1670	298	*	ug/Kg		18	25 - 120
Benzo[a]anthracene	1670	1380		ug/Kg		83	73 - 120
Benzo[a]pyrene	1670	1470		ug/Kg		88	80 - 123
Benzo[b]fluoranthene	1670	1320		ug/Kg		79	63 - 120
Benzo[g,h,i]perylene	1670	1290		ug/Kg		77	77 - 120
Benzo[k]fluoranthene	1670	1460		ug/Kg		88	68 - 120
Bis(2-chloroethoxy)methane	1670	1170		ug/Kg		70	55 - 120
Bis(2-chloroethyl)ether	1670	1140		ug/Kg		68	49 - 120
Bis(2-ethylhexyl) phthalate	1670	1330		ug/Kg		80	65 - 120
Butylbenzylphthalate	1670	1270		ug/Kg		76	66 - 120
Caprolactam	1670	1190		ug/Kg		71	54 - 120
Carbazole	1670	1450		ug/Kg		87	74 - 120
Chrysene	1670	1310		ug/Kg		79	66 - 120
Di-n-butyl phthalate	1670	1400		ug/Kg		84	65 - 120
Di-n-octyl phthalate	1670	1500		ug/Kg		90	60 - 125
Dibenz(a,h)anthracene	1670	1460		ug/Kg		88	72 - 120
Dibenzofuran	1670	1240		ug/Kg		74	68 - 120
Diethyl phthalate	1670	1240		ug/Kg		75	65 - 120
Dimethyl phthalate	1670	1250		ug/Kg		75	67 - 120
Fluoranthene	1670	1440		ug/Kg		86	71 - 120
Fluorene	1670	1300		ug/Kg		78	68 - 120
Hexachlorobenzene	1670	1350		ug/Kg		81	58 - 120
Hexachlorobutadiene	1670	1130		ug/Kg		68	48 - 120
Hexachlorocyclopentadiene	1670	1040		ug/Kg		63	43 - 120
Hexachloroethane	1670	1050		ug/Kg		63	48 - 120
Indeno[1,2,3-cd]pyrene	1670	1380		ug/Kg		83	71 - 122
Isophorone	1670	1150		ug/Kg		69	62 - 120
N-Nitrosodi-n-propylamine	1670	1040		ug/Kg		62	55 - 120
N-Nitrosodiphenylamine	1420	1230		ug/Kg		87	71 - 120
Naphthalene	1670	1200		ug/Kg		72	60 - 120
Nitrobenzene	1670	1210		ug/Kg		72	56 - 120
Phenanthrene	1670	1390		ug/Kg		83	74 - 120
Phenol	1670	1080		ug/Kg		65	57 - 120
Pyrene	1670	1310		ug/Kg		79	70 - 120
Pentachlorophenol	3330	2450		ug/Kg		73	41 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl-d14 (Surr)	81		45 - 108
Nitrobenzene-d5 (Surr)	63		32 - 97
2-Fluorophenol (Surr)	67		26 - 96
2-Fluorobiphenyl (Surr)	71		39 - 100

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: LCS 410-210970/2-A
Matrix: Solid
Analysis Batch: 211051

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 210970

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	46		13 - 121
Phenol-d5 (Surr)	63		27 - 104

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-209136/1-A
Matrix: Water
Analysis Batch: 209488

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 209136

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin (1C)	0.0020	U	0.020	0.0020	ug/L		12/27/21 10:23	12/28/21 08:38	1
alpha-BHC (1C)	0.0030	U	0.020	0.0030	ug/L		12/27/21 10:23	12/28/21 08:38	1
alpha-Chlordane (1C)	0.0030	U	0.020	0.0030	ug/L		12/27/21 10:23	12/28/21 08:38	1
beta-BHC (1C)	0.0034	U	0.020	0.0034	ug/L		12/27/21 10:23	12/28/21 08:38	1
delta-BHC (1C)	0.0034	U	0.020	0.0034	ug/L		12/27/21 10:23	12/28/21 08:38	1
Dieldrin (1C)	0.0053	U	0.030	0.0053	ug/L		12/27/21 10:23	12/28/21 08:38	1
Endosulfan I (1C)	0.0043	U	0.020	0.0043	ug/L		12/27/21 10:23	12/28/21 08:38	1
Endosulfan II (1C)	0.015	U	0.040	0.015	ug/L		12/27/21 10:23	12/28/21 08:38	1
Endosulfan sulfate (1C)	0.0058	U	0.030	0.0058	ug/L		12/27/21 10:23	12/28/21 08:38	1
Endrin (1C)	0.0081	U	0.030	0.0081	ug/L		12/27/21 10:23	12/28/21 08:38	1
Endrin aldehyde (1C)	0.020	U	0.10	0.020	ug/L		12/27/21 10:23	12/28/21 08:38	1
Endrin ketone (1C)	0.0050	U	0.030	0.0050	ug/L		12/27/21 10:23	12/28/21 08:38	1
gamma-BHC (Lindane) (1C)	0.0020	U	0.020	0.0020	ug/L		12/27/21 10:23	12/28/21 08:38	1
gamma-Chlordane (1C)	0.0070	U	0.040	0.0070	ug/L		12/27/21 10:23	12/28/21 08:38	1
Heptachlor (1C)	0.0020	U	0.020	0.0020	ug/L		12/27/21 10:23	12/28/21 08:38	1
Heptachlor epoxide (1C)	0.0023	U	0.020	0.0023	ug/L		12/27/21 10:23	12/28/21 08:38	1
Methoxychlor (1C)	0.030	U	0.11	0.030	ug/L		12/27/21 10:23	12/28/21 08:38	1
Toxaphene (1C)	0.30	U	1.0	0.30	ug/L		12/27/21 10:23	12/28/21 08:38	1
p,p'-DDD (1C)	0.0050	U	0.030	0.0050	ug/L		12/27/21 10:23	12/28/21 08:38	1
p,p'-DDE (1C)	0.0050	U	0.030	0.0050	ug/L		12/27/21 10:23	12/28/21 08:38	1
p,p'-DDT (1C)	0.0052	U	0.030	0.0052	ug/L		12/27/21 10:23	12/28/21 08:38	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	50		20 - 149	12/27/21 10:23	12/28/21 08:38	1
DCB Decachlorobiphenyl (Surr) (2C)	49		20 - 149	12/27/21 10:23	12/28/21 08:38	1
Tetrachloro-m-xylene (Surr) (1C)	52		20 - 129	12/27/21 10:23	12/28/21 08:38	1
Tetrachloro-m-xylene (Surr) (2C)	51		20 - 129	12/27/21 10:23	12/28/21 08:38	1

Lab Sample ID: LCS 410-209136/2-A
Matrix: Water
Analysis Batch: 209488

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 209136

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Aldrin (1C)	0.100	0.0846		ug/L		85	10 - 148
alpha-BHC (1C)	0.100	0.0954		ug/L		95	47 - 132
beta-BHC (1C)	0.100	0.0973		ug/L		97	65 - 139
delta-BHC (1C)	0.100	0.0992		ug/L		99	56 - 141
Dieldrin (1C)	0.200	0.201		ug/L		100	58 - 145

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: LCS 410-209136/2-A
Matrix: Water
Analysis Batch: 209488

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 209136

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Endosulfan I (1C)	0.100	0.0935		ug/L		94	40 - 138
Endosulfan II (1C)	0.200	0.181		ug/L		91	61 - 138
Endosulfan sulfate (1C)	0.200	0.185		ug/L		93	41 - 133
Endrin (1C)	0.200	0.188		ug/L		94	63 - 131
Endrin aldehyde (1C)	0.200	0.164		ug/L		82	57 - 135
Endrin ketone (1C)	0.200	0.195		ug/L		98	67 - 136
gamma-BHC (Lindane) (1C)	0.100	0.0962		ug/L		96	61 - 139
Heptachlor (1C)	0.100	0.0866		ug/L		87	35 - 136
Heptachlor epoxide (1C)	0.100	0.0943		ug/L		94	59 - 146
Methoxychlor (1C)	1.00	1.07		ug/L		107	66 - 148
p,p'-DDD (1C)	0.200	0.195		ug/L		97	42 - 148
p,p'-DDE (1C)	0.200	0.191		ug/L		95	20 - 140
p,p'-DDT (1C)	0.200	0.211		ug/L		106	40 - 145

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	62		20 - 149
DCB Decachlorobiphenyl (Surr) (2C)	60		20 - 149
Tetrachloro-m-xylene (Surr) (1C)	72		20 - 129
Tetrachloro-m-xylene (Surr) (2C)	70		20 - 129

Lab Sample ID: LCSD 410-209136/3-A
Matrix: Water
Analysis Batch: 209488

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 209136

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin (1C)	0.100	0.0855		ug/L		85	10 - 148	1	30
alpha-BHC (1C)	0.100	0.0986		ug/L		99	47 - 132	3	30
beta-BHC (1C)	0.100	0.0978		ug/L		98	65 - 139	0	30
delta-BHC (1C)	0.100	0.0998		ug/L		100	56 - 141	1	30
Dieldrin (1C)	0.200	0.200		ug/L		100	58 - 145	1	30
Endosulfan I (1C)	0.100	0.0947		ug/L		95	40 - 138	1	30
Endosulfan II (1C)	0.200	0.183		ug/L		92	61 - 138	2	30
Endosulfan sulfate (1C)	0.200	0.189		ug/L		95	41 - 133	1	30
Endrin (1C)	0.200	0.198		ug/L		99	63 - 131	5	30
Endrin aldehyde (1C)	0.200	0.168		ug/L		84	57 - 135	2	20
Endrin ketone (1C)	0.200	0.194		ug/L		97	67 - 136	0	30
gamma-BHC (Lindane) (1C)	0.100	0.0986		ug/L		99	61 - 139	2	30
Heptachlor (1C)	0.100	0.0868		ug/L		87	35 - 136	0	30
Heptachlor epoxide (1C)	0.100	0.0972		ug/L		97	59 - 146	2	30
Methoxychlor (1C)	1.00	1.09		ug/L		109	66 - 148	2	30
p,p'-DDD (1C)	0.200	0.197		ug/L		99	42 - 148	1	30
p,p'-DDE (1C)	0.200	0.188		ug/L		94	20 - 140	1	30
p,p'-DDT (1C)	0.200	0.208		ug/L		104	40 - 145	1	30

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: LCSD 410-209136/3-A
Matrix: Water
Analysis Batch: 209488

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 209136

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr) (1C)	61		20 - 149
DCB Decachlorobiphenyl (Surr) (2C)	57		20 - 149
Tetrachloro-m-xylene (Surr) (1C)	72		20 - 129
Tetrachloro-m-xylene (Surr) (2C)	70		20 - 129

Lab Sample ID: MB 410-210973/1-A
Matrix: Solid
Analysis Batch: 211349

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 210973

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin (1C)	0.17	U	0.83	0.17	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
alpha-BHC (1C)	0.348	J	0.83	0.17	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
alpha-Chlordane (1C)	0.17	U	0.83	0.17	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
beta-BHC (1C)	0.44	U	1.0	0.44	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
delta-BHC (1C)	0.45	U	1.0	0.45	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
Dieldrin (1C)	0.33	U	1.7	0.33	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
Endosulfan I (1C)	0.22	U	0.83	0.22	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
Endosulfan II (1C)	1.1	U	2.3	1.1	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
Endosulfan sulfate (1C)	0.33	U	1.7	0.33	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
Endrin (1C)	0.68	U	1.7	0.68	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
Endrin aldehyde (1C)	0.33	U	1.7	0.33	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
Endrin ketone (1C)	0.60	U	2.0	0.60	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
gamma-BHC (Lindane) (2C)	0.21	U	0.83	0.21	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
gamma-Chlordane (1C)	0.25	U	0.83	0.25	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
Heptachlor (1C)	0.31	U	0.83	0.31	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
Heptachlor epoxide (1C)	0.17	U	0.83	0.17	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
Methoxychlor (1C)	1.8	U	6.7	1.8	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
Toxaphene (1C)	14	U	33	14	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
p,p'-DDD (1C)	0.33	U	1.7	0.33	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
p,p'-DDE (1C)	0.33	U	1.7	0.33	ug/Kg		01/03/22 09:55	01/04/22 11:10	1
p,p'-DDT (1C)	0.79	U	1.7	0.79	ug/Kg		01/03/22 09:55	01/04/22 11:10	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr) (1C)	78		54 - 143	01/03/22 09:55	01/04/22 11:10	1
DCB Decachlorobiphenyl (Surr) (2C)	84		54 - 143	01/03/22 09:55	01/04/22 11:10	1
Tetrachloro-m-xylene (Surr) (1C)	65		20 - 131	01/03/22 09:55	01/04/22 11:10	1
Tetrachloro-m-xylene (Surr) (2C)	65		20 - 131	01/03/22 09:55	01/04/22 11:10	1

Lab Sample ID: LCS 410-210973/2-A
Matrix: Solid
Analysis Batch: 211349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 210973

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Aldrin (1C)	3.33	2.21		ug/Kg		66	56 - 134
alpha-BHC (1C)	3.33	1.52	*	ug/Kg		46	55 - 135

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: LCS 410-210973/2-A
Matrix: Solid
Analysis Batch: 211349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 210973

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
beta-BHC (1C)	3.33	2.27		ug/Kg		68	50 - 132
delta-BHC (1C)	3.33	0.45	U *	ug/Kg		11	47 - 141
Dieldrin (1C)	6.67	4.75		ug/Kg		71	54 - 136
Endosulfan I (1C)	3.33	2.15		ug/Kg		65	51 - 124
Endosulfan II (1C)	6.67	4.30		ug/Kg		64	56 - 125
Endosulfan sulfate (1C)	6.67	3.93		ug/Kg		59	56 - 125
Endrin (1C)	6.67	4.63		ug/Kg		70	56 - 129
Endrin aldehyde (1C)	6.67	4.07		ug/Kg		61	46 - 133
Endrin ketone (1C)	6.67	5.02		ug/Kg		75	55 - 128
gamma-BHC (Lindane) (2C)	3.33	1.51	*-	ug/Kg		45	52 - 138
Heptachlor (1C)	3.33	2.12		ug/Kg		64	52 - 139
Heptachlor epoxide (1C)	3.33	2.34		ug/Kg		70	55 - 133
Methoxychlor (1C)	33.3	29.0		ug/Kg		87	54 - 148
p,p'-DDD (1C)	6.67	4.79		ug/Kg		72	59 - 135
p,p'-DDE (1C)	6.67	4.98		ug/Kg		75	57 - 135
p,p'-DDT (1C)	6.67	5.19		ug/Kg		78	53 - 151

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	73		54 - 143
DCB Decachlorobiphenyl (Surr) (2C)	76		54 - 143
Tetrachloro-m-xylene (Surr) (1C)	56		20 - 131
Tetrachloro-m-xylene (Surr) (2C)	59		20 - 131

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

Lab Sample ID: MB 410-210974/1-A
Matrix: Solid
Analysis Batch: 211508

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 210974

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	5.3	U	17	5.3	ug/Kg		01/03/22 09:55	01/04/22 11:13	1
PCB-1221 (2C)	5.3	U	17	5.3	ug/Kg		01/03/22 09:55	01/04/22 11:13	1
PCB-1232 (2C)	5.3	U	17	5.3	ug/Kg		01/03/22 09:55	01/04/22 11:13	1
PCB-1242 (2C)	5.3	U	17	5.3	ug/Kg		01/03/22 09:55	01/04/22 11:13	1
PCB-1248 (2C)	5.3	U	17	5.3	ug/Kg		01/03/22 09:55	01/04/22 11:13	1
PCB-1254 (2C)	6.4	U	17	6.4	ug/Kg		01/03/22 09:55	01/04/22 11:13	1
PCB-1260 (2C)	6.4	U	17	6.4	ug/Kg		01/03/22 09:55	01/04/22 11:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	88		45 - 143	01/03/22 09:55	01/04/22 11:13	1
DCB Decachlorobiphenyl (Surr) (2C)	84		45 - 143	01/03/22 09:55	01/04/22 11:13	1
Tetrachloro-m-xylene (1C)	94		53 - 140	01/03/22 09:55	01/04/22 11:13	1
Tetrachloro-m-xylene (2C)	88		53 - 140	01/03/22 09:55	01/04/22 11:13	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: LCS 410-210974/2-A
Matrix: Solid
Analysis Batch: 211508

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 210974

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016 (2C)	167	133		ug/Kg		80	68 - 121
PCB-1260 (2C)	168	161		ug/Kg		96	75 - 130
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
DCB Decachlorobiphenyl (Surr) (1C)	91		45 - 143				
DCB Decachlorobiphenyl (Surr) (2C)	88		45 - 143				
Tetrachloro-m-xylene (1C)	98		53 - 140				
Tetrachloro-m-xylene (2C)	91		53 - 140				

Lab Sample ID: 410-67738-2 MS
Matrix: Solid
Analysis Batch: 211508

Client Sample ID: BH-16 (0.0-0.5)
Prep Type: Total/NA
Prep Batch: 210974

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
PCB-1016 (2C)	11	U F1	354	178	F1	ug/Kg	☼	50	68 - 121
PCB-1260 (2C)	22	J F1	356	214	F1	ug/Kg	☼	54	75 - 130
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
DCB Decachlorobiphenyl (Surr) (1C)	66		45 - 143						
DCB Decachlorobiphenyl (Surr) (2C)	69		45 - 143						
Tetrachloro-m-xylene (1C)	71		53 - 140						
Tetrachloro-m-xylene (2C)	68		53 - 140						

Lab Sample ID: 410-67738-2 MSD
Matrix: Solid
Analysis Batch: 211508

Client Sample ID: BH-16 (0.0-0.5)
Prep Type: Total/NA
Prep Batch: 210974

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016 (2C)	11	U F1	352	114	F1	ug/Kg	☼	32	68 - 121	44	50
PCB-1260 (2C)	22	J F1	354	132	F1	ug/Kg	☼	31	75 - 130	47	50
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
DCB Decachlorobiphenyl (Surr) (1C)	39	S1-	45 - 143								
DCB Decachlorobiphenyl (Surr) (2C)	40	S1-	45 - 143								
Tetrachloro-m-xylene (1C)	45	S1-	53 - 140								
Tetrachloro-m-xylene (2C)	42	S1-	53 - 140								

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-208585/1-A
Matrix: Solid
Analysis Batch: 209414

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 208585

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	1.7	U	5.0	1.7	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Aluminum	11	U	20	11	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Arsenic	1.4	U	3.0	1.4	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Barium	0.15	U	0.50	0.15	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Beryllium	0.10	U	0.50	0.10	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Cadmium	0.10	U	0.50	0.10	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Calcium	12	U	50	12	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Chromium	0.18	U	1.5	0.18	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Cobalt	0.15	U	0.50	0.15	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Copper	0.77	U	2.0	0.77	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Iron	6.2	U	20	6.2	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Lead	0.60	U	1.5	0.60	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Magnesium	4.0	U ^5-	10	4.0	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Manganese	0.52	U	1.0	0.52	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Nickel	0.26	U	1.0	0.26	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Potassium	20	U	50	20	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Selenium	1.5	U	5.0	1.5	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Silver	0.40	U ^5-	1.0	0.40	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Sodium	46	U	100	46	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Thallium	1.3	U	3.0	1.3	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Zinc	1.0	U	2.0	1.0	mg/Kg		12/22/21 13:34	12/27/21 17:42	1
Vanadium	0.43	U	1.0	0.43	mg/Kg		12/22/21 13:34	12/27/21 17:42	1

Lab Sample ID: LCS 410-208585/2-A
Matrix: Solid
Analysis Batch: 209414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208585

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	500	481		mg/Kg		96	80 - 120
Arsenic	50.0	48.5		mg/Kg		97	80 - 120
Barium	50.0	51.0		mg/Kg		102	80 - 120
Beryllium	5.00	4.95		mg/Kg		99	80 - 120
Cadmium	5.00	5.08		mg/Kg		102	80 - 120
Calcium	500	508		mg/Kg		102	80 - 120
Chromium	50.0	48.5		mg/Kg		97	80 - 120
Cobalt	50.0	51.7		mg/Kg		103	80 - 120
Copper	50.0	51.7		mg/Kg		103	80 - 120
Iron	500	544		mg/Kg		109	80 - 120
Lead	5.00	5.03		mg/Kg		101	80 - 120
Magnesium	500	501	^5-	mg/Kg		100	80 - 120
Manganese	50.0	50.6		mg/Kg		101	80 - 120
Nickel	50.0	51.5		mg/Kg		103	80 - 120
Potassium	500	509		mg/Kg		102	80 - 120
Selenium	10.0	10.2		mg/Kg		102	80 - 120
Silver	5.00	4.92	^5-	mg/Kg		98	80 - 120
Sodium	500	499		mg/Kg		100	80 - 120
Thallium	9.99	8.67		mg/Kg		87	80 - 120
Zinc	50.0	49.0		mg/Kg		98	80 - 120

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: LCS 410-208585/2-A
Matrix: Solid
Analysis Batch: 209414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208585

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vanadium	50.0	49.4		mg/Kg		99	80 - 120

Lab Sample ID: MB 410-208880/1-A
Matrix: Water
Analysis Batch: 209382

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 208880

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.052	0.016	mg/L		12/23/21 11:04	12/27/21 15:42	1
Aluminum	0.16	U	0.31	0.16	mg/L		12/23/21 11:04	12/27/21 15:42	1
Barium	0.0010	U	0.0052	0.0010	mg/L		12/23/21 11:04	12/27/21 15:42	1
Beryllium	0.0010	U	0.0052	0.0010	mg/L		12/23/21 11:04	12/27/21 15:42	1
Cadmium	0.0010	U	0.0052	0.0010	mg/L		12/23/21 11:04	12/27/21 15:42	1
Calcium	0.099	U	0.52	0.099	mg/L		12/23/21 11:04	12/27/21 15:42	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/23/21 11:04	12/27/21 15:42	1
Cobalt	0.0015	U ^5+	0.0052	0.0015	mg/L		12/23/21 11:04	12/27/21 15:42	1
Copper	0.012	U	0.021	0.012	mg/L		12/23/21 11:04	12/27/21 15:42	1
Iron	0.041	U	0.21	0.041	mg/L		12/23/21 11:04	12/27/21 15:42	1
Lead	0.0073	U	0.015	0.0073	mg/L		12/23/21 11:04	12/27/21 15:42	1
Magnesium	0.041	U	0.10	0.041	mg/L		12/23/21 11:04	12/27/21 15:42	1
Manganese	0.0031	U	0.010	0.0031	mg/L		12/23/21 11:04	12/27/21 15:42	1
Nickel	0.0022	U ^5+	0.010	0.0022	mg/L		12/23/21 11:04	12/27/21 15:42	1
Potassium	0.21	U	0.52	0.21	mg/L		12/23/21 11:04	12/27/21 15:42	1
Selenium	0.016	U	0.052	0.016	mg/L		12/23/21 11:04	12/27/21 15:42	1
Silver	0.0052	U ^5-	0.010	0.0052	mg/L		12/23/21 11:04	12/27/21 15:42	1
Sodium	0.25	U	1.0	0.25	mg/L		12/23/21 11:04	12/27/21 15:42	1
Thallium	0.0083	U ^5+	0.031	0.0083	mg/L		12/23/21 11:04	12/27/21 15:42	1
Zinc	0.0038	U	0.021	0.0038	mg/L		12/23/21 11:04	12/27/21 15:42	1
Vanadium	0.0020	U	0.010	0.0020	mg/L		12/23/21 11:04	12/27/21 15:42	1

Lab Sample ID: MB 410-208880/1-A
Matrix: Water
Analysis Batch: 209653

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 208880

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.016	U	0.052	0.016	mg/L		12/23/21 11:04	12/28/21 09:49	1

Lab Sample ID: LCS 410-208880/2-A
Matrix: Water
Analysis Batch: 209382

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208880

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.0826		mg/L		83	80 - 120
Aluminum	5.00	4.84		mg/L		97	80 - 120
Barium	0.500	0.499		mg/L		100	80 - 120
Beryllium	0.0500	0.0498		mg/L		100	80 - 120
Cadmium	0.0500	0.0503		mg/L		101	80 - 120
Calcium	5.00	5.02		mg/L		100	80 - 120
Chromium	0.500	0.524		mg/L		105	80 - 120
Cobalt	0.500	0.500	^5+	mg/L		100	80 - 120

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: LCS 410-208880/2-A
Matrix: Water
Analysis Batch: 209382

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208880

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.500	0.505		mg/L		101	80 - 120
Iron	5.00	5.15		mg/L		103	80 - 120
Lead	0.0500	0.0520		mg/L		104	80 - 120
Magnesium	5.00	5.08		mg/L		102	80 - 120
Manganese	0.500	0.508		mg/L		102	80 - 120
Nickel	0.500	0.491	^5+	mg/L		98	80 - 120
Potassium	5.00	5.17		mg/L		103	80 - 120
Selenium	0.100	0.0941		mg/L		94	80 - 120
Silver	0.0500	0.0519	^5-	mg/L		104	80 - 120
Sodium	5.00	5.25		mg/L		105	80 - 120
Thallium	0.100	0.102	^5+	mg/L		102	80 - 120
Zinc	0.500	0.470		mg/L		94	80 - 120
Vanadium	0.500	0.503		mg/L		101	80 - 120

Lab Sample ID: LCS 410-208880/2-A
Matrix: Water
Analysis Batch: 209653

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208880

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.500	0.486		mg/L		97	80 - 120

Lab Sample ID: MB 410-209909/1-A
Matrix: Water
Analysis Batch: 210261

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 209909

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.016	U	0.050	0.016	mg/L		12/29/21 05:11	12/29/21 14:37	1
Aluminum	0.15	U	0.30	0.15	mg/L		12/29/21 05:11	12/29/21 14:37	1
Arsenic	0.016	U	0.050	0.016	mg/L		12/29/21 05:11	12/29/21 14:37	1
Barium	0.0010	U	0.0050	0.0010	mg/L		12/29/21 05:11	12/29/21 14:37	1
Beryllium	0.0010	U	0.0050	0.0010	mg/L		12/29/21 05:11	12/29/21 14:37	1
Cadmium	0.0010	U	0.0050	0.0010	mg/L		12/29/21 05:11	12/29/21 14:37	1
Calcium	0.096	U	0.50	0.096	mg/L		12/29/21 05:11	12/29/21 14:37	1
Chromium	0.0016	U	0.015	0.0016	mg/L		12/29/21 05:11	12/29/21 14:37	1
Cobalt	0.0015	U	0.0050	0.0015	mg/L		12/29/21 05:11	12/29/21 14:37	1
Copper	0.012	U	0.020	0.012	mg/L		12/29/21 05:11	12/29/21 14:37	1
Iron	0.040	U	0.20	0.040	mg/L		12/29/21 05:11	12/29/21 14:37	1
Lead	0.0071	U	0.015	0.0071	mg/L		12/29/21 05:11	12/29/21 14:37	1
Magnesium	0.040	U	0.10	0.040	mg/L		12/29/21 05:11	12/29/21 14:37	1
Manganese	0.0030	U	0.010	0.0030	mg/L		12/29/21 05:11	12/29/21 14:37	1
Nickel	0.0021	U	0.010	0.0021	mg/L		12/29/21 05:11	12/29/21 14:37	1
Selenium	0.016	U	0.050	0.016	mg/L		12/29/21 05:11	12/29/21 14:37	1
Silver	0.0050	U ^5-	0.010	0.0050	mg/L		12/29/21 05:11	12/29/21 14:37	1
Sodium	0.24	U	1.0	0.24	mg/L		12/29/21 05:11	12/29/21 14:37	1
Zinc	0.0037	U	0.020	0.0037	mg/L		12/29/21 05:11	12/29/21 14:37	1
Vanadium	0.0019	U	0.010	0.0019	mg/L		12/29/21 05:11	12/29/21 14:37	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

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

Lab Sample ID: MB 410-209909/1-A
Matrix: Water
Analysis Batch: 210804

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 209909

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Potassium	0.20	U	0.50	0.20	mg/L		12/29/21 05:11	12/30/21 20:10	1
Thallium	0.0152	J	0.030	0.0081	mg/L		12/29/21 05:11	12/30/21 20:10	1

Lab Sample ID: LCS 410-209909/2-A
Matrix: Water
Analysis Batch: 210261

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 209909

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	5.00	5.02		mg/L		100	80 - 120
Arsenic	0.500	0.507		mg/L		101	80 - 120
Barium	0.500	0.512		mg/L		102	80 - 120
Beryllium	0.0500	0.0520		mg/L		104	80 - 120
Cadmium	0.0500	0.0518		mg/L		104	80 - 120
Calcium	5.00	4.99		mg/L		100	80 - 120
Chromium	0.500	0.509		mg/L		102	80 - 120
Cobalt	0.500	0.524		mg/L		105	80 - 120
Copper	0.500	0.503		mg/L		100	80 - 120
Iron	5.00	5.05		mg/L		101	80 - 120
Lead	0.0500	0.0525		mg/L		105	80 - 120
Magnesium	5.00	4.99		mg/L		100	80 - 120
Manganese	0.500	0.516		mg/L		103	80 - 120
Nickel	0.500	0.527		mg/L		105	80 - 120
Selenium	0.100	0.117		mg/L		117	80 - 120
Silver	0.0500	0.0524	^5-	mg/L		105	80 - 120
Sodium	5.00	4.98		mg/L		100	80 - 120
Zinc	0.500	0.512		mg/L		102	80 - 120
Vanadium	0.500	0.507		mg/L		101	80 - 120

Lab Sample ID: LCS 410-209909/2-A
Matrix: Water
Analysis Batch: 210804

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 209909

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	0.100	0.115		mg/L		115	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-208546/1-A
Matrix: Water
Analysis Batch: 208996

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 208546

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.079	U	0.20	0.079	ug/L		12/22/21 12:25	12/24/21 15:02	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 410-208546/2-A
Matrix: Water
Analysis Batch: 208996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 208546
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	1.00	0.840		ug/L		84	80 - 118

Lab Sample ID: MB 410-210000/1-A
Matrix: Water
Analysis Batch: 210368

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 210000

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079	U	0.20	0.079	ug/L		12/29/21 08:50	12/29/21 21:15	1

Lab Sample ID: LCS 410-210000/2-A
Matrix: Water
Analysis Batch: 210368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 210000
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	1.00	0.837		ug/L		84	80 - 118

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-209311/1-A
Matrix: Solid
Analysis Batch: 209743

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 209311

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	U	0.036	0.015	mg/Kg		12/27/21 14:48	12/28/21 13:50	1

Lab Sample ID: LCS 410-209311/2-A
Matrix: Solid
Analysis Batch: 209743

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 209311
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.100	0.0999		mg/Kg		100	80 - 120

Method: 2340C-2011 - Hardness, Total

Lab Sample ID: MB 410-208580/6
Matrix: Water
Analysis Batch: 208580

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Hardness	3.0	U	10	3.0	mg/L			12/22/21 10:08	1

Lab Sample ID: LCS 410-208580/7
Matrix: Water
Analysis Batch: 208580

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Hardness	40.0	40.0		mg/L		100	91 - 108

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Method: 2340C-2011 - Hardness, Total (Continued)

Lab Sample ID: 410-67738-1 MS
Matrix: Water
Analysis Batch: 208580

Client Sample ID: BH-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Hardness	160	F1	200	385	F1	mg/L		111	91 - 108

Lab Sample ID: 410-67738-1 DU
Matrix: Water
Analysis Batch: 208580

Client Sample ID: BH-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Hardness	160	F1	176	F5	mg/L		8	7

Method: 5310C-2011 - Total Organic Carbon/Persulfate - Ultrav

Lab Sample ID: MB 410-210136/36
Matrix: Water
Analysis Batch: 210136

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			12/29/21 01:52	1

Lab Sample ID: MB 410-210136/6
Matrix: Water
Analysis Batch: 210136

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			12/28/21 18:52	1

Lab Sample ID: LCS 410-210136/35
Matrix: Water
Analysis Batch: 210136

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	25.0	25.0		mg/L		100	91 - 113

Method: EPA-Lloyd Kahn - Organic Carbon, Total (TOC)

Lab Sample ID: MB 180-383781/4
Matrix: Solid
Analysis Batch: 383781

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	970	U	1000	970	mg/Kg			12/29/21 13:17	1

Lab Sample ID: LCS 180-383781/5
Matrix: Solid
Analysis Batch: 383781

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	38200	36500		mg/Kg		96	75 - 125

Marginal Exceedance (ME) Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LCS 410-210973/2-A

Matrix: Solid

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	%Rec	%Rec. Limits	ME %Rec. Limits	Marginal Exceedance
								Status
Aldrin (1C)	3.33	2.21		ug/Kg	66	56 - 134	51 - 126	
alpha-BHC (1C)	3.33	1.52	*-	ug/Kg	46	55 - 135	55 - 134	X
beta-BHC (1C)	3.33	2.27		ug/Kg	68	50 - 132	58 - 139	
delta-BHC (1C)	3.33	0.45	U *-	ug/Kg	11	47 - 141	27 - 169	X
Dieldrin (1C)	6.67	4.75		ug/Kg	71	54 - 136	53 - 137	
Endosulfan I (1C)	3.33	2.15		ug/Kg	65	51 - 124	53 - 128	
Endosulfan II (1C)	6.67	4.30		ug/Kg	64	56 - 125	55 - 136	
Endosulfan sulfate (1C)	6.67	3.93		ug/Kg	59	56 - 125	65 - 143	
Endrin (1C)	6.67	4.63		ug/Kg	70	56 - 129	77 - 143	
Endrin aldehyde (1C)	6.67	4.07		ug/Kg	61	46 - 133	49 - 133	
Endrin ketone (1C)	6.67	5.02		ug/Kg	75	55 - 128	77 - 139	
gamma-BHC (Lindane) (2C)	3.33	1.51	*-	ug/Kg	45	52 - 138	57 - 144	X
Heptachlor (1C)	3.33	2.12		ug/Kg	64	52 - 139	58 - 126	
Heptachlor epoxide (1C)	3.33	2.34		ug/Kg	70	55 - 133	65 - 137	
Methoxychlor (1C)	33.3	29.0		ug/Kg	87	54 - 148	78 - 154	
p,p'-DDD (1C)	6.67	4.79		ug/Kg	72	59 - 135	57 - 150	
p,p'-DDE (1C)	6.67	4.98		ug/Kg	75	57 - 135	54 - 159	
p,p'-DDT (1C)	6.67	5.19		ug/Kg	78	53 - 151	56 - 147	

Summary

Number of Analytes Reported	Number of Marginal Exceedances Allowed	Number of Marginal Exceedances Found
18	1	0

X = % Recovery is greater than widest possible limit

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

GC/MS VOA

Prep Batch: 208450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-2	BH-16 (0.0-0.5)	Total/NA	Solid	5035	

Analysis Batch: 208918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-2	BH-16 (0.0-0.5)	Total/NA	Solid	8260C	208450
MB 410-208918/8	Method Blank	Total/NA	Solid	8260C	
LCS 410-208918/5	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-208918/6	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 210498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Total/NA	Water	8260C	
MB 410-210498/7	Method Blank	Total/NA	Water	8260C	
LCS 410-210498/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 410-210498/5	Lab Control Sample Dup	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 208801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Total/NA	Water	3510C	
MB 410-208801/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-208801/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-208801/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 210970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-2	BH-16 (0.0-0.5)	Total/NA	Solid	3546	
MB 410-210970/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-210970/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 211051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-210970/1-A	Method Blank	Total/NA	Solid	8270D	210970
LCS 410-210970/2-A	Lab Control Sample	Total/NA	Solid	8270D	210970

Analysis Batch: 211429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-2	BH-16 (0.0-0.5)	Total/NA	Solid	8270D	210970

Analysis Batch: 212256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Total/NA	Water	8270D	208801
MB 410-208801/1-A	Method Blank	Total/NA	Water	8270D	208801
LCS 410-208801/2-A	Lab Control Sample	Total/NA	Water	8270D	208801
LCSD 410-208801/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	208801

GC Semi VOA

Prep Batch: 209136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Total/NA	Water	3510C	

Eurofins Lancaster Laboratories Env, LLC

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

GC Semi VOA (Continued)

Prep Batch: 209136 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-209136/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-209136/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-209136/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 209488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Total/NA	Water	8081B	209136
MB 410-209136/1-A	Method Blank	Total/NA	Water	8081B	209136
LCS 410-209136/2-A	Lab Control Sample	Total/NA	Water	8081B	209136
LCSD 410-209136/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	209136

Prep Batch: 210973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-2	BH-16 (0.0-0.5)	Total/NA	Solid	3546	
MB 410-210973/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-210973/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 210974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-2	BH-16 (0.0-0.5)	Total/NA	Solid	3546	
MB 410-210974/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-210974/2-A	Lab Control Sample	Total/NA	Solid	3546	
410-67738-2 MS	BH-16 (0.0-0.5)	Total/NA	Solid	3546	
410-67738-2 MSD	BH-16 (0.0-0.5)	Total/NA	Solid	3546	

Analysis Batch: 211349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-2	BH-16 (0.0-0.5)	Total/NA	Solid	8081B	210973
MB 410-210973/1-A	Method Blank	Total/NA	Solid	8081B	210973
LCS 410-210973/2-A	Lab Control Sample	Total/NA	Solid	8081B	210973

Analysis Batch: 211508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-2	BH-16 (0.0-0.5)	Total/NA	Solid	8082A	210974
MB 410-210974/1-A	Method Blank	Total/NA	Solid	8082A	210974
LCS 410-210974/2-A	Lab Control Sample	Total/NA	Solid	8082A	210974
410-67738-2 MS	BH-16 (0.0-0.5)	Total/NA	Solid	8082A	210974
410-67738-2 MSD	BH-16 (0.0-0.5)	Total/NA	Solid	8082A	210974

Metals

Filtration Batch: 208309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Dissolved	Water	Filtration	

Prep Batch: 208546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Dissolved	Water	7470A	208309
MB 410-208546/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-208546/2-A	Lab Control Sample	Total/NA	Water	7470A	

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Metals

Prep Batch: 208585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-2	BH-16 (0.0-0.5)	Total/NA	Solid	3050B	
MB 410-208585/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-208585/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 208880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Dissolved	Water	Non-Digest Prep	208309
MB 410-208880/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-208880/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 208996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Dissolved	Water	7470A	208546
MB 410-208546/1-A	Method Blank	Total/NA	Water	7470A	208546
LCS 410-208546/2-A	Lab Control Sample	Total/NA	Water	7470A	208546

Prep Batch: 209311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-2	BH-16 (0.0-0.5)	Total/NA	Solid	7471B	
MB 410-209311/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-209311/2-A	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 209382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Dissolved	Water	6010D	208880
MB 410-208880/1-A	Method Blank	Total/NA	Water	6010D	208880
LCS 410-208880/2-A	Lab Control Sample	Total/NA	Water	6010D	208880

Analysis Batch: 209414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-2	BH-16 (0.0-0.5)	Total/NA	Solid	6010D	208585
MB 410-208585/1-A	Method Blank	Total/NA	Solid	6010D	208585
LCS 410-208585/2-A	Lab Control Sample	Total/NA	Solid	6010D	208585

Analysis Batch: 209653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Dissolved	Water	6010D	208880
MB 410-208880/1-A	Method Blank	Total/NA	Water	6010D	208880
LCS 410-208880/2-A	Lab Control Sample	Total/NA	Water	6010D	208880

Analysis Batch: 209743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-2	BH-16 (0.0-0.5)	Total/NA	Solid	7471B	209311
MB 410-209311/1-A	Method Blank	Total/NA	Solid	7471B	209311
LCS 410-209311/2-A	Lab Control Sample	Total/NA	Solid	7471B	209311

Prep Batch: 209909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Total Recoverable	Water	3005A	
MB 410-209909/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-209909/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Eurofins Lancaster Laboratories Env, LLC

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Metals

Prep Batch: 210000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Total/NA	Water	7470A	
MB 410-210000/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-210000/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 210261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Total Recoverable	Water	6010D	209909
MB 410-209909/1-A	Method Blank	Total Recoverable	Water	6010D	209909
LCS 410-209909/2-A	Lab Control Sample	Total Recoverable	Water	6010D	209909

Analysis Batch: 210368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Total/NA	Water	7470A	210000
MB 410-210000/1-A	Method Blank	Total/NA	Water	7470A	210000
LCS 410-210000/2-A	Lab Control Sample	Total/NA	Water	7470A	210000

Analysis Batch: 210804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Total Recoverable	Water	6010D	209909
MB 410-209909/1-A	Method Blank	Total Recoverable	Water	6010D	209909
LCS 410-209909/2-A	Lab Control Sample	Total Recoverable	Water	6010D	209909

General Chemistry

Analysis Batch: 208580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Total/NA	Water	2340C-2011	
MB 410-208580/6	Method Blank	Total/NA	Water	2340C-2011	
LCS 410-208580/7	Lab Control Sample	Total/NA	Water	2340C-2011	
410-67738-1 MS	BH-16	Total/NA	Water	2340C-2011	
410-67738-1 DU	BH-16	Total/NA	Water	2340C-2011	

Analysis Batch: 208645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-2	BH-16 (0.0-0.5)	Total/NA	Solid	Moisture	

Analysis Batch: 210136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-1	BH-16	Total/NA	Water	5310C-2011	
MB 410-210136/36	Method Blank	Total/NA	Water	5310C-2011	
MB 410-210136/6	Method Blank	Total/NA	Water	5310C-2011	
LCS 410-210136/35	Lab Control Sample	Total/NA	Water	5310C-2011	

Analysis Batch: 383781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-2	BH-16 (0.0-0.5)	Total/NA	Solid	EPA-Lloyd Kahn	
MB 180-383781/4	Method Blank	Total/NA	Solid	EPA-Lloyd Kahn	
LCS 180-383781/5	Lab Control Sample	Total/NA	Solid	EPA-Lloyd Kahn	

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Client Sample ID: BH-16

Lab Sample ID: 410-67738-1

Date Collected: 12/20/21 08:50

Matrix: Water

Date Received: 12/21/21 18:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	210498	12/30/21 15:13	TQ4J	ELLE
Total/NA	Prep	3510C			208801	12/22/21 22:35	UKQ8	ELLE
Total/NA	Analysis	8270D		1	212256	01/06/22 17:36	P7EB	ELLE
Total/NA	Prep	3510C			209136	12/27/21 10:23	BLX5	ELLE
Total/NA	Analysis	8081B		1	209488	12/28/21 11:05	WN7O	ELLE
Dissolved	Filtration	Filtration			208309	12/22/21 07:08	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			208880	12/23/21 11:04	UAMX	ELLE
Dissolved	Analysis	6010D		1	209653	12/28/21 10:29	WJM9	ELLE
Dissolved	Filtration	Filtration			208309	12/22/21 07:08	UDL9	ELLE
Dissolved	Prep	Non-Digest Prep			208880	12/23/21 11:04	UAMX	ELLE
Dissolved	Analysis	6010D		1	209382	12/27/21 16:15	T8CQ	ELLE
Total Recoverable	Prep	3005A			209909	12/29/21 05:11	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	210261	12/29/21 15:35	T8CQ	ELLE
Total Recoverable	Prep	3005A			209909	12/29/21 05:11	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	210804	12/30/21 21:01	T8CQ	ELLE
Dissolved	Filtration	Filtration			208309	12/22/21 07:08	UDL9	ELLE
Dissolved	Prep	7470A			208546	12/22/21 12:25	UAMX	ELLE
Dissolved	Analysis	7470A		1	208996	12/24/21 15:14	UEFS	ELLE
Total/NA	Prep	7470A			210000	12/29/21 08:50	UAMX	ELLE
Total/NA	Analysis	7470A		1	210368	12/29/21 21:58	UEFS	ELLE
Total/NA	Analysis	2340C-2011		5	208580	12/22/21 10:22	USAE	ELLE
Total/NA	Analysis	5310C-2011		1	210136	12/29/21 07:01	KGQ6	ELLE

Client Sample ID: BH-16 (0.0-0.5)

Lab Sample ID: 410-67738-2

Date Collected: 12/20/21 11:00

Matrix: Solid

Date Received: 12/21/21 18:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	208645	12/22/21 15:33	UVJN	ELLE

Client Sample ID: BH-16 (0.0-0.5)

Lab Sample ID: 410-67738-2

Date Collected: 12/20/21 11:00

Matrix: Solid

Date Received: 12/21/21 18:23

Percent Solids: 46.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			208450	12/22/21 10:06	JJT8	ELLE
Total/NA	Analysis	8260C		1	208918	12/23/21 19:00	ULCP	ELLE
Total/NA	Prep	3546			210970	01/03/22 09:59	H2LC	ELLE
Total/NA	Analysis	8270D		1	211429	01/04/22 19:11	P7EB	ELLE
Total/NA	Prep	3546			210973	01/03/22 09:55	H2LC	ELLE
Total/NA	Analysis	8081B		5	211349	01/04/22 13:30	UAMZ	ELLE
Total/NA	Prep	3546			210974	01/03/22 09:55	H2LC	ELLE
Total/NA	Analysis	8082A		1	211508	01/04/22 11:55	JC94	ELLE
Total/NA	Prep	3050B			208585	12/22/21 13:34	UJLA	ELLE
Total/NA	Analysis	6010D		1	209414	12/27/21 18:43	T8CQ	ELLE

Eurofins Lancaster Laboratories Env, LLC

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Client Sample ID: BH-16 (0.0-0.5)

Lab Sample ID: 410-67738-2

Date Collected: 12/20/21 11:00

Matrix: Solid

Date Received: 12/21/21 18:23

Percent Solids: 46.9

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	7471B			209311	12/27/21 14:48	UJLA	ELLE
Total/NA	Analysis	7471B		1	209743	12/28/21 14:20	UEFS	ELLE
Total/NA	Analysis	EPA-Lloyd Kahn		1	383781	12/29/21 14:02	DLF	TAL PIT

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date																
Virginia	NELAP	460182	06-14-22																
<p>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.</p> <table border="1"> <thead> <tr> <th>Analysis Method</th> <th>Prep Method</th> <th>Matrix</th> <th>Analyte</th> </tr> </thead> <tbody> <tr> <td>8260C</td> <td>5035</td> <td>Solid</td> <td>m&p-Xylene</td> </tr> <tr> <td>8260C</td> <td>5035</td> <td>Solid</td> <td>o-Xylene</td> </tr> <tr> <td>Moisture</td> <td></td> <td>Solid</td> <td>Percent Moisture</td> </tr> </tbody> </table>				Analysis Method	Prep Method	Matrix	Analyte	8260C	5035	Solid	m&p-Xylene	8260C	5035	Solid	o-Xylene	Moisture		Solid	Percent Moisture
Analysis Method	Prep Method	Matrix	Analyte																
8260C	5035	Solid	m&p-Xylene																
8260C	5035	Solid	o-Xylene																
Moisture		Solid	Percent Moisture																

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	01-02-22
California	State	2891	04-30-22
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	06-30-22
Georgia	State	PA 02-00416	01-02-22
Illinois	NELAP	004375	01-02-22
Kansas	NELAP	E-10350	01-02-22
Kentucky (UST)	State	162013	04-30-22
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	06-30-22
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-22
Nevada	State	PA00164	08-31-22
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	01-02-22
New York	NELAP	11182	01-02-22
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-22
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	01-02-22
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-22
Texas	NELAP	T104704528	01-02-22
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-22
Virginia	NELAP	10043	01-02-22
West Virginia DEP	State	142	01-02-22
Wisconsin	State	998027800	08-31-22

Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
6010D	Metals (ICP)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
7471B	Mercury (CVAA)	SW846	ELLE
2340C-2011	Hardness, Total	SM	ELLE
5310C-2011	Total Organic Carbon/Persulfate - Ultrav	SM	ELLE
EPA-Lloyd Kahn	Organic Carbon, Total (TOC)	EPA	TAL PIT
Moisture	Percent Moisture	EPA	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3050B	Preparation, Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE
7471B	Preparation, Mercury	SW846	ELLE
Filtration	Sample Filtration	None	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL PIT = Eurofins Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-67738-1	BH-16	Water	12/20/21 08:50	12/21/21 18:23
410-67738-2	BH-16 (0.0-0.5)	Solid	12/20/21 11:00	12/21/21 18:23

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>> Select a Laboratory or Service Center <<

Chain of Custody Record

#N/A
#N/A
#N/A
##

Regulatory Program: DW NPDES RCRA Other: VADEP

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact		Project Manager: <u>Ashey Sweeney</u>		COC No: <u>7</u>				
Email: <u>ASweeney@eurofins.com</u>		Site Contact: <u>Any N</u>		<u>7</u> of <u>7</u> COCs				
Your Company Name here: <u>ALUX ASSOCIATES</u>		Tel/Fax:		Date: <u>12/20/21</u>				
Address: <u>402 Heron Drive</u>		Analysis Turnaround Time		Carrier:				
City/State/Zip: <u>Wigan Twp, NJ 08095</u>		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		TALS Project #:				
(xxx) xxx-xxxx Phone: <u>856-475-2800</u>		TAT if different from Below _____		Sampler:				
(xxx) xxx-xxxx FAX		<input checked="" type="checkbox"/> 2 weeks		For Lab Use Only:				
Project Name: <u>Milosev - Alexandria</u>		<input type="checkbox"/> 1 week		Walk-in Client:				
Site: <u>Alexandria, VA</u>		<input type="checkbox"/> 2 days		Lab Sampling:				
P O #		<input type="checkbox"/> 1 day		Job / SDG No.:				
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Sample Specific Notes:
<u>BH-16 (D.O. - D.5)</u>	<u>12/20/21</u>	<u>11:00</u>	<u>G</u>	<u>sed</u>	<u>6</u>		<u>XX</u>	<u>XX</u>
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.						Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months		
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown								
Special Instructions/QC Requirements & Comments:								
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No			Custody Seal No.: <u>not present</u>		Cooler Temp. (°C): Obs'd: <u>0.6</u> Corr'd: <u>0.6</u>		Therm ID No.: <u>DT4201</u>	
Relinquished by: <u>[Signature]</u>		Company: <u>Louis</u>		Date/Time: _____		Received by: <u>[Signature]</u>		Company: <u>EPA-BAIT</u>
Relinquished by: <u>[Signature]</u>		Company: <u>EPA-BAIT</u>		Date/Time: <u>12/21/21 11:00</u>		Received by: <u>[Signature]</u>		Company: <u>ELLE</u>
Relinquished by: <u>[Signature]</u>		Company: <u>17:42</u>		Date/Time: <u>12/21/21</u>		Received in Laboratory by: <u>[Signature]</u>		Company: <u>ELLE</u>



Eurofins Lancaster Laboratories Env, LLC
 2425 New Holland Pike
 Lancaster, PA 17601
 Phone: 717-656-2300 Fax: 717-656-2681

2300

Chain of Custody Record



ofins Environment Testing America

Client Information (Sub Contract Lab)		Sampler:	Lab PM:	281.1		
Client Contact: Shipping/Receiving		Phone:	E-Mail:	Page 1 of 1		
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See NELAP - Virginia)		Job #: 410-67738-1		
Address: 301 Alpha Drive, RIDC Park,		Due Date Requested: 1/20/2022	Analysis Requested			Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2SO4 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)
City: Pittsburgh		TAT Requested (days):				
State, Zip: PA, 15238		PO #:	Total Number of containers			Other:
Phone: 412-963-7058(Tel) 412-963-2468(Fax)		WO #:				
Email:		Project #:	Field Filtered Sample (Yes or No)			Perform MS/MSD (Yes or No)
Project Name: Mueser - Alexandria		SSOW#:				
Site:		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, AA=Air)		Lloyd_Kahn_Mod		
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix	Special Instructions/Note:
BH-16 (0.0-0.5) (410-67738-2)		12/20/21	11:00 Eastern	Solid	X	1
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
Unconfirmed		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2		Special Instructions/QC Requirements:		
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by: <i>[Signature]</i>		Date/Time: 12-22-2021 1422	Company: EUE	Received by: DW	Date/Time: 12-23-21	Company: <i>[Signature]</i>
Relinquished by:		Date/Time:	Company:	Received by:	Date/Time: 10:15	Company:
Relinquished by:		Date/Time:	Company:	Received by:	Date/Time:	Company:
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-67738-1

Login Number: 67738

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Renner, Melissa

Question	Answer	Comment
The cooler's custody seal is 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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
Sample custody seals are intact.	N/A	

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Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-67738-1

Login Number: 67738
List Number: 2
Creator: Watson, Debbie

List Source: Eurofins Pittsburgh
List Creation: 12/23/21 11:38 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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?	N/A	
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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-67738-2
Client Project/Site: Mueser - Alexandria

For:
Roux Associates, Inc.
402 Heron Drive
Logan Township, New Jersey 08085

Attn: Ms. Ashley Sweeney

Kelly Tessier

Authorized for release by:
1/10/2022 1:18:42 PM

Kelly Tessier, Project Manager
(717)556-3928
kelly.tessier@eurofinset.com

LINKS

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results through
TotalAccess

Have a Question?



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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
 - Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is 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.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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A handwritten signature in cursive script that reads "Kelly Tessier".

Kelly Tessier
Project Manager
1/10/2022 1:18:42 PM



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Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-2

Qualifiers

Geotechnical

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
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
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

Case Narrative

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-2

Job ID: 410-67738-2

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

**Job Narrative
410-67738-2**

Receipt

The samples were received on 12/21/2021 6:23 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.6°C

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

A trip blank was not submitted for analysis with this sample shipment; and was not listed on the Chain of Custody (COC).

Geotechnical

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

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Detection Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-2

Client Sample ID: BH-16 (0.0-0.5)

Lab Sample ID: 410-67738-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sand	10		1.0	0.5	%	1		D422	Total/NA
Silt	71.5		1.0	0.5	%	1		D422	Total/NA
Clay	18.5		1.0	0.5	%	1		D422	Total/NA
75 mm	100.0		1.0	0.5	% Passing	1		D422	Total/NA
37.5 mm	100.0		1.0	0.5	% Passing	1		D422	Total/NA
19 mm	100.0		1.0	0.5	% Passing	1		D422	Total/NA
4.75 mm	100.0		1.0	0.5	% Passing	1		D422	Total/NA
3.35 mm	99.8		1.0	0.5	% Passing	1		D422	Total/NA
2.36 mm	99.3		1.0	0.5	% Passing	1		D422	Total/NA
1.18 mm	91.4		1.0	0.5	% Passing	1		D422	Total/NA
0.6 mm	90.8		1.0	0.5	% Passing	1		D422	Total/NA
0.3 mm	90.4		1.0	0.5	% Passing	1		D422	Total/NA
0.15 mm	90.2		1.0	0.5	% Passing	1		D422	Total/NA
0.064 mm	87.0		1.0	0.5	% Passing	1		D422	Total/NA
0.05 mm	80.0		1.0	0.5	% Passing	1		D422	Total/NA
0.02 mm	61.0		1.0	0.5	% Passing	1		D422	Total/NA
0.005 mm	18.5		1.0	0.5	% Passing	1		D422	Total/NA
0.002 mm	8.0		1.0	0.5	% Passing	1		D422	Total/NA
0.001 mm	2.5		1.0	0.5	% Passing	1		D422	Total/NA
0.075 mm	90.0		1.0	0.5	% Passing	1		D422	Total/NA

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This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Client Sample Results

Client: Roux Associates, Inc.
 Project/Site: Mueser - Alexandria

Job ID: 410-67738-2

Client Sample ID: BH-16 (0.0-0.5)

Lab Sample ID: 410-67738-2

Date Collected: 12/20/21 11:00

Matrix: Solid

Date Received: 12/21/21 18:23

Method: D422 - Grain Size

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.5	U	1.0	0.5	%			12/30/21 11:30	1
Sand	10		1.0	0.5	%			12/30/21 11:30	1
Silt	71.5		1.0	0.5	%			12/30/21 11:30	1
Clay	18.5		1.0	0.5	%			12/30/21 11:30	1
75 mm	100.0		1.0	0.5	% Passing			12/30/21 11:30	1
37.5 mm	100.0		1.0	0.5	% Passing			12/30/21 11:30	1
19 mm	100.0		1.0	0.5	% Passing			12/30/21 11:30	1
4.75 mm	100.0		1.0	0.5	% Passing			12/30/21 11:30	1
3.35 mm	99.8		1.0	0.5	% Passing			12/30/21 11:30	1
2.36 mm	99.3		1.0	0.5	% Passing			12/30/21 11:30	1
1.18 mm	91.4		1.0	0.5	% Passing			12/30/21 11:30	1
0.6 mm	90.8		1.0	0.5	% Passing			12/30/21 11:30	1
0.3 mm	90.4		1.0	0.5	% Passing			12/30/21 11:30	1
0.15 mm	90.2		1.0	0.5	% Passing			12/30/21 11:30	1
0.064 mm	87.0		1.0	0.5	% Passing			12/30/21 11:30	1
0.05 mm	80.0		1.0	0.5	% Passing			12/30/21 11:30	1
0.02 mm	61.0		1.0	0.5	% Passing			12/30/21 11:30	1
0.005 mm	18.5		1.0	0.5	% Passing			12/30/21 11:30	1
0.002 mm	8.0		1.0	0.5	% Passing			12/30/21 11:30	1
0.001 mm	2.5		1.0	0.5	% Passing			12/30/21 11:30	1
0.075 mm	90.0		1.0	0.5	% Passing			12/30/21 11:30	1

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0.75 Inch	555.45	555.45
#4	502.97	502.97
#6	482.68	482.36
#8	430.65	429.63
PAN	546.10	385.33

Comments: _____

Sieve Size (Mr)	Tare+Sample Wt.(g)	Tare Weight (g)
#16	455.83	452
#30	294.00	293.67
#50	265.77	265.59
#100	318.40	318.29
#200	216.68	216.61
PAN	385.43	385.32

Grain Size Classification	
% Gravel	0
% Sand	9.99
% Silt	71.51
% Clay	18.5
% Clay + Silt	

Balance ID#: 18959 Oven ID# 18961
 Oven Date/Time/Temp In: 1-7-22 1100 105 Oven Date/Time/Temp Out: 1-10-22 1030

Moisture

Tare Weight (g)	Sample Weight (g)	Oven Dry Wt. (g)
0.7937	5.0470	5.7183

Init./Emp. #: 443 1198

Bulk Density

Tare Weight (g)	Sample Weight (g)	DI H ₂ O+Spile Wt. (g)
81.5819	10.0191	104.7300

Init./Emp. #: 443 1198

Hydrometer Readings Sample Wt. 49.70 Hydrometer ID #. 237666 Init./Emp #: 443 1198

Time	Temp	Reading
2 minutes	22	1.021
5 minutes	22	1.020
15 minutes	22	1.016
30 minutes	22	1.013
60 minutes	22	1.012
250 minutes	22	1.007
1440 minutes	22	1.0055

Comments: _____

Oven ID#: 116859
 Oven Date/Time/Temp In: 1-8-22
 Oven Date/Time/Temp Out: 1-10-22

Particle Size Distribution

Sample: 410-67737-2 **Date:** 12/30/21 **Init/Emp #** VS41049

Percent Passing	Particle Size
100.00	75
100.00	37.5
100.00	19
100.00	4.75
99.82	3.35
99.26	2.36
91.42	1.18
90.75	0.6
90.38	0.3
90.16	0.15
90.01	0.075
73.19	0.03904
68.85	0.02503
51.51	0.01516
38.50	0.01107
34.17	0.00789
12.49	0.00405
5.98	0.00172

- * Used for line 1
- ** Used for line 2
- *** Used for lines 1 and 2
- + Calculated from line 1
- ++ Calculated from line 2

Log (particle size)
-1.124939
-1.408518
-1.601483
-1.819347
-1.955960
-2.103134
-2.392483
-2.763832

Line 1 Regr
Constant
Std Err of Y Est
R Squared
No. of Observatio
Degrees of Freed
X Coefficient(s)
Std Err of Coef.

Line 2 Regr
Constant
Std Err of Y Est
R Squared
No. of Observatio
Degrees of Freed
X Coefficient(s)
Std Err of Coef.

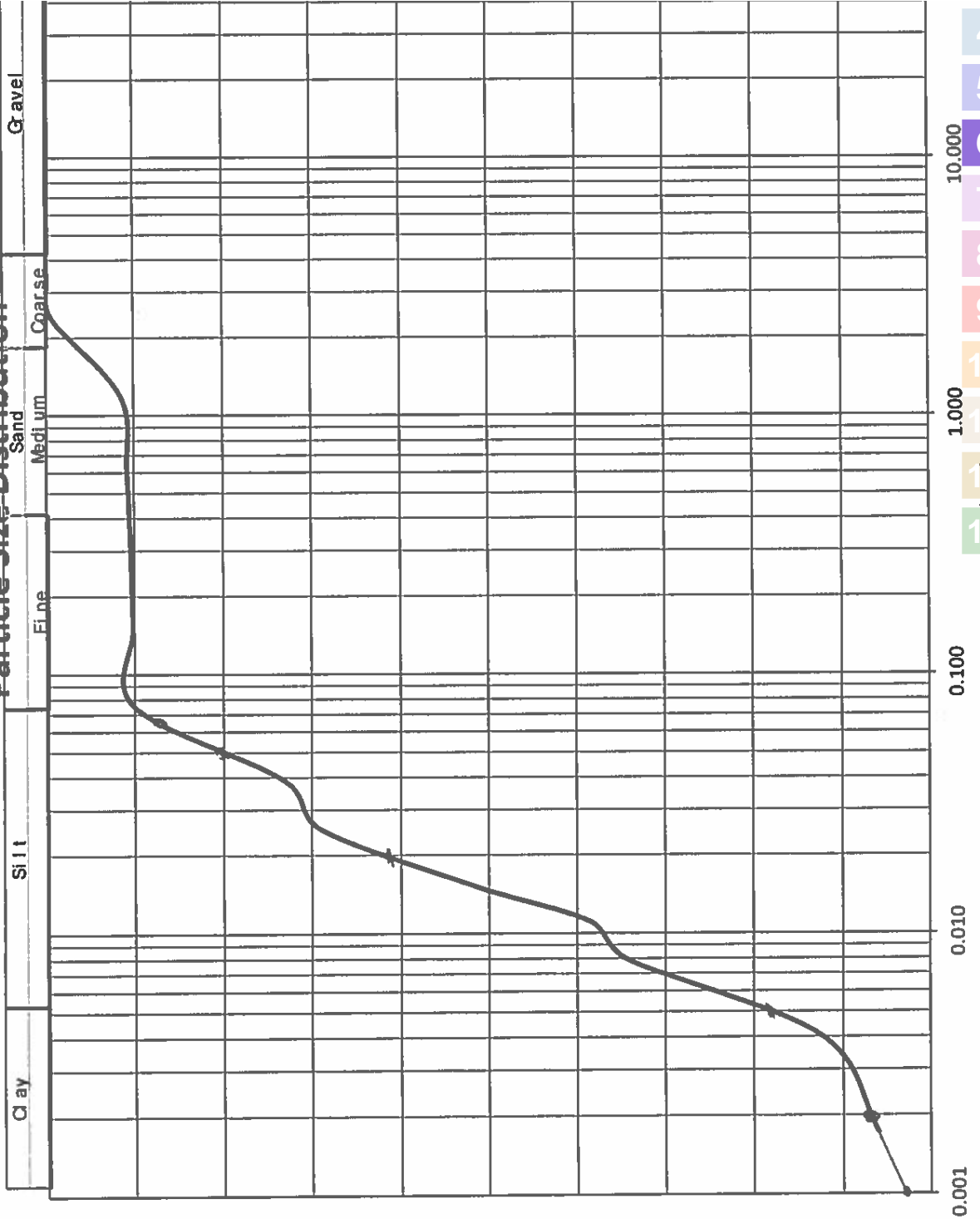
Particle Size Ca.
0.064
0.05
0.02
0.005
0.002
0.001

1<98/957



410-67737-2

Particle Size Distribution



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Particle Size Distribution

Sample: 410-67737-2	Date: 12/30/21
	Init/Emp # VS41049

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
3 inch	538.70	538.70	0.00	100
1.5 inch	559.21	559.21	0.00	100
0.75 inch	555.45	555.45	0.00	100
# 4	502.97	502.97	0.00	100
# 6	482.68	482.36	0.32	99.824282
# 8	430.65	429.63	1.02	99.264181
PAN	566.10	385.33	180.77	

Sieve Size (Mr)	Tare + Smp. Wt.	Tare Weight	Diff. (Mr)	% Passing
# 16	455.83	452.00	3.83	91.4245198
# 30	294.00	293.67	0.33	90.7490399
# 50	265.77	265.59	0.18	90.3805963
# 100	318.40	318.29	0.11	90.1554363
# 200	216.68	216.61	0.07	90.0121527
PAN	385.43	385.32	0.11	

Moisture			
Tare Weight	Sample Weight	Oven Dry Weight	Ratio
0.7937	5.0470	5.7183	0.9757

Bulk Density			
Tare Weight	Sample Weight	DI H2O + Smp. Wt.	Vol Soil
81.5819	10.0191	104.7300	94.7109
			5.2891

Hydrometer Readings		49.70	Hydrometer #: 237666	
Time	Sample Weight	Reading	Corr. Rding.	Part. Size
2 minutes	22.0	1.0210	1.017	0.0390
5 minutes	22.0	1.0200	1.016	0.0250
15 minutes	22.0	1.0160	1.012	0.0152
30 minutes	22.0	1.0130	1.009	0.0111
60 minutes	22.0	1.0120	1.008	0.0079
250 minutes	22.0	1.0070	1.003	0.0041
1440 minutes	22.0	1.0052	1.001	0.0017



QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-2

Geotechnical

Analysis Batch: 213153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67738-2	BH-16 (0.0-0.5)	Total/NA	Solid	D422	

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Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-2

Client Sample ID: BH-16 (0.0-0.5)

Lab Sample ID: 410-67738-2

Date Collected: 12/20/21 11:00

Matrix: Solid

Date Received: 12/21/21 18:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D422		1	213153	12/30/21 11:30	DZU8	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-2

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460182	06-14-22

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
D422		Solid	0.001 mm
D422		Solid	0.002 mm
D422		Solid	0.005 mm
D422		Solid	0.02 mm
D422		Solid	0.05 mm
D422		Solid	0.064 mm
D422		Solid	0.075 mm
D422		Solid	0.15 mm
D422		Solid	0.3 mm
D422		Solid	0.6 mm
D422		Solid	1.18 mm
D422		Solid	19 mm
D422		Solid	2.36 mm
D422		Solid	3.35 mm
D422		Solid	37.5 mm
D422		Solid	4.75 mm
D422		Solid	75 mm
D422		Solid	Clay
D422		Solid	Gravel
D422		Solid	Sand
D422		Solid	Silt

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Method Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-2

Method	Method Description	Protocol	Laboratory
D422	Grain Size	ASTM	ELLE

Protocol References:

ASTM = ASTM International

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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Sample Summary

Client: Roux Associates, Inc.
Project/Site: Mueser - Alexandria

Job ID: 410-67738-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-67738-2	BH-16 (0.0-0.5)	Solid	12/20/21 11:00	12/21/21 18:23

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>> Select a Laboratory or Service Center <<

#N/A
#N/A
#N/A
##

Chain of Custody Record



Regulatory Program: DW NPDES RCRA Other: **VADEP**

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact		Project Manager: Ashey Sweeney		COC No: 7				
Email: ASweeney@eurofins.com		Site Contact: Any N?		Date: 12/20/21				
Your Company Name here: ADUX ASSOCIATES		Tel/Fax:		Lab Contact:				
Address: 402 Heron Drive		Analysis Turnaround Time		Carrier:				
City/State/Zip: Wigan Twp, NJ 08095		<input type="checkbox"/> CALENDAR DAYS <input checked="" type="checkbox"/> WORKING DAYS		TALS Project #:				
(xxx) xxx-xxxx Phone: 856-475-2800		TAT if different from Below _____		Sampler:				
(xxx) xxx-xxxx FAX:		<input checked="" type="checkbox"/> 2 weeks		For Lab Use Only:				
Project Name: Milosev - Alexandria		<input type="checkbox"/> 1 week		Walk-in Client:				
Site: Alexandria, VA		<input type="checkbox"/> 2 days		Lab Sampling:				
P O #:		<input type="checkbox"/> 1 day		Job / SDG No.:				
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Sample Specific Notes:
BH-116 (D.O. - 0.5)	12/20/21	11:00	G	sed	6		XX	XX
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.						<input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months		
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown								
Special Instructions/QC Requirements & Comments:								
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: not present		Cooler Temp. (°C): Obs'd: 0.6 Corr'd: 0.6		Therm ID No.: DT4201		
Relinquished by: [Signature]		Company: Lowes		Date/Time: [Signature]		Received by: [Signature]		Company: EPA-BAIT
Relinquished by: [Signature]		Company: EPA-BAIT		Date/Time: 12/21/21 11:00		Received by: [Signature]		Company: ELLE
Relinquished by: [Signature]		Company: 17:42		Date/Time: 12/21/21		Received in Laboratory by: [Signature]		Company: ELLE



Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 410-67738-2

Login Number: 67738

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Renner, Melissa

Question	Answer	Comment
The cooler's custody seal is 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 ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
Sample custody seals are intact.	N/A	

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Soil and Sediment Boring Logs

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Client: Mueser Rutledge Consulting Engineers		Site: Alexandria Waterfront Flood Mitigation		Project Number: 2549.0012Y000	
Address: Union and King Street		City/State: Alexandria, Virginia		Logged By: M. Carr	
Start to Finish Date: 11/8/2021 - 11/8/2021		Contractor: Freestate Drilling		Drill Type: HSA	
Borehole Depth: 31 feet		Backfill: Cuttings		Sampler Type/Method: 2" Split Spoon	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

ROUX STANDARD LOG - 1/21/22 13:30 - \\SRV\ID\N\YEP1\N\YSHARED\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
			Brown grey SAND; some Gravel; Dry; No staining; No odor.	2	0.3 0.4 0.3		Collected soil sample BH-04 (9.0-9.5).
			Dark grey and brown SAND and GRAVEL; Moist; No staining; No odor.	2	0.2 0.5 0.7 0.5		
5			CONCRETE; Dry; No staining; No odor.	2			
			Brown SAND; Moist; No staining; Slight odor.		2.3 1.9 2.0		
			Brown SAND; some Gravel; Moist; No staining; No odor.	2	0.4 0.6 0.7		
			Brown grey SAND; some Gravel and Clay; Wet; Some staining; Odor.	2	0.9 2.5 2.7		
10			Grey CLAY; Wet; No staining; No odor.	0	2.3 1.0		
			Grey brown CLAY; Wet; No staining; No odor.		1.5 0 0.1		
15							
			Grey CLAY; Wet; No staining; No odor.	0			
20							
					1.5 0.0 0.1 0.0		
25							
30							

Bottom of borehole at 31 feet



Client: Mueser Rutledge Consulting Engineers		Site: Alexandria Waterfront Flood Mitigation		Project Number: 2549.0012Y000	
Address: Union and King Street		City/State: Alexandria, Virginia		Logged By: M. Carr	
Start to Finish Date: 11/4/2021 - 11/4/2021		Contractor: Freestate Drilling		Drill Type: HSA	
Borehole Depth: 30.5 feet		Backfill: Cuttings		Sampler Type/Method: 2" Split Spoon	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

ROUX STANDARD LOG - 1/21/22 13:30 - \\SRV\ID\NYEP1\NYSHARED\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
			Light grey GRAVEL; Dry; No staining; No odor.		0.21	0.0	
			Brown grey SAND and GRAVEL; Dry; No staining; No odor.		0.1	0.1	
					0.0	0.0	
			Brown CLAY; little Sand and Gravel; Dry; No staining; No odor.		0.58	0.0	
					0.0	0.0	
					0.0	0.0	
5			Dark brown grey CLAY; some Sand; little Fill (Gravel, Asphalt, Glass); Moist; No staining; No odor.		0.75	0.0	
					0.0	0.2	
			Dark grey SAND; some Silt; little Clay and Brick; Wet; No staining; No odor.		0.67	0.3	Collected soil sample BH-15(5.5-6).
					2	0.2	
			Grey SAND; some Silt; Wet; No staining; No odor.		0.1	0.2	
					0.1	0.1	
10					0	0.1	
					0.1	0.1	
			Grey SAND; little Clay; Wet; No staining; No odor.		0.39	0.0	
					0	0.0	
15			Grey CLAY; Wet; No staining; No odor.		0	0.0	
					0	0.0	
			Grey CLAY; some Sand; Wet; No staining; No odor.		1.5	0.2	
					0	0.2	
25					0	0.2	
			Grey CLAY; some decomposed Wood; Wet; No staining; No odor.		1.5	0.3	
30					0.2	0.2	

Bottom of borehole at 30.5 feet



Client: Mueser Rutledge Consulting Engineers		Site: Alexandria Waterfront Flood Mitigation		Project Number: 2549.0012Y000	
Address: Union and King Street		City/State: Alexandria, Virginia		Logged By: M. Carr	
Start to Finish Date: 11/1/2021 - 11/1/2021		Contractor: Freestate Drilling		Drill Type: HSA	
Borehole Depth: 20 feet		Backfill: Cuttings		Sampler Type/Method: 2" Split Spoon	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

ROUX STANDARD LOG - 1/21/22 13:30 - \\SRV\ID\YEP1\IN\SHARED\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
			TOPSOIL; Dry; No staining; No odor.		0.67	0.0	Collected soil sample GI-10 (3.5-4.0).
			Brown SILTY SAND; little Fill; Dry; No staining; No odor.			0.1	
						0.2	
						0.1	
			Light brown SAND; little Gravel; Dry; No staining; No odor.		0.92	0.2	
			White light tan SAND; some Gravel; Dry; No staining; No odor.			0.7	
			Dark brown dark grey SILTY SAND; Dry; No staining; Odor.			2.5	
						11.7	
			Green black SILTY SAND; Moist; No staining; Slight odor.		0.58	65.9	
5			Light grey SAND and GRAVEL; Moist; No staining; No odor.			61.7	
						0.4	
			Light grey CLAYEY SAND; some Gravel; Dry; No staining; No odor.		2	2.9	
			Red Brick DEBRIS and SAND; Wet; No staining; Slight odor.			0.9	
						0.7	
			Black SAND and GRAVEL; Wet; No staining; Odor.			0.5	
			Red BRICK piece and SAND; Wet; No staining; Slight odor.		0.88	3.1	
						4.2	
						39.6	
10					0	46.4	
			Grey SAND; Wet; No staining; Slight odor.				
						0.56	
			Dark grey CLAYEY SAND; some Gravel and Asphalt; Wet; No staining; No odor.			1.0	
15			Grey CLAY; Wet; No staining; Slight odor.		0	4.6	
						2.1	
			Grey SANDY CLAY; Wet; No staining; Slight odor.				
						1.5	
						0.7	
						1.7	
			Grey CLAY; Wet; No staining; Slight odor.			0.9	
20						1.1	
			Bottom of borehole at 20 feet				



Client: Mueser Rutledge Consulting Engineers	Site: Alexandria Waterfront Flood Mitigation	Project Number: 2549.0012Y000	
Address: Union and King Street	City/State: Alexandria, Virginia	Logged By: P. Ni	
Start to Finish Date: 11/18/2021 - 11/18/2021	Contractor: Freestate Drilling	Drill Type: HSA	Sampler Type/Method: 2" Split Spoon
Borehole Depth: 20 feet	Backfill: Cuttings	Borehole Diameter: 3-inches	DTW:
Area: NM	Elevation: NM	Northing: NM	Easting: NM

ROUX STANDARD LOG - 1/21/22 13:30 - \\SRV\ID\YEP1\IN\SHARE\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
5			Grey brown CLAY; trace Asphalt; Dry; No staining; No odor.	0.92	0.2		Collected soil sample GI-11 (9.5-10.0).
			Grey CLAY; some Sand; trace Fill (Wood and Brick); Dry; No staining; No odor.	0.71	0.2		
			Brown CLAY; some Sand; little Wood; Moist; No staining; No odor.	0.83	0.1		
			Brown CLAY; some Sand; Wet; No staining; No odor.	0.42	0.1		
			WOOD; Wet; No staining; No odor.	0.42	0.2		
			Black CLAY; some Sand; trace Wood; Wet; Staining; Odor.	0.67	0.7		
			BRICK; some Clay and Sand; Wet; No staining; No odor.	0.17	1.3		
			BRICK; some Clay and Sand; Wet; No staining; No odor.	0	1.3		
			BRICK; some Clay and Sand; Wet; No staining; No odor.	0	0.9		
			BRICK; some Clay and Sand; Wet; No staining; No odor.	0	0.8		
20			Grey fine to medium SAND; trace Gravel; Wet; No staining; No odor.	0.75	0.5		
			Grey CLAY; Wet; No staining; No odor.		0.3		
			Grey CLAY; Wet; No staining; No odor.		0.3		
Bottom of borehole at 20 feet							



Client: Mueser Rutledge Consulting Engineers		Site: Alexandria Waterfront Flood Mitigation		Project Number: 2549.0012Y000	
Address: Union and King Street		City/State: Alexandria, Virginia		Logged By: P. Ni	
Start to Finish Date: 11/18/2021 - 11/18/2021		Contractor: Freestate Drilling		Drill Type: HSA	
Borehole Depth: 20 feet		Backfill: Cuttings		Sampler Type/Method: 2" Split Spoon	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

ROUX STANDARD LOG - 1/21/22 13:30 - \\SRV\ID\YEP1\IN\YSHARED\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
			Brown CLAY; some Brick; Dry; No staining; No odor.		0.75		
			Brown SAND; little Silt and Wood; Dry; No staining; No odor.		0.75	0.0	
			Brown Fine SAND; some Brick; some Clay; trace Asphalt and Wood; Moist; No staining; No odor.		0.67	0.0	
5			Brown Medium SAND; some Clay and Fill (Brick and Gravel); Wet; No staining; No odor.	X	0.54	0.0	Collected soil sample GI-12 (5.5-6.0).
			Grey CLAY; trace Sand; Wet; No staining; No odor.		0.54	0.0	
10			Grey CLAY; some Wood; Wet; No staining; No odor.		0	0.0	
			Grey CLAY; some Sand; Wet; No staining; No odor.		0.39	0.0	
15			Grey CLAY; some Sand; Wet; No staining; No odor.		0	0.0	
20			Grey CLAY; some Sand; Wet; No staining; No odor.		0.56	0.0	
			Bottom of borehole at 20 feet			0.0	



Client: Mueser Rutledge Consulting Engineers		Site: Alexandria Waterfront Flood Mitigation		Project Number: 2549.0012Y000	
Address: Union and King Street		City/State: Alexandria, Virginia		Logged By: P. Ni	
Start to Finish Date: 11/18/2021 - 11/18/2021		Contractor: Freestate Drilling		Drill Type: HSA	
Borehole Depth: 20 feet		Backfill: Cuttings		Sampler Type/Method: 2" Split Spoon	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

ROUX STANDARD LOG - 1/21/22 13:30 - \\SRV\ID\YEP1\IN\SHARED\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
			Brown grey CLAY; Dry; No staining; No odor.		0.67	0.2	Collected soil sample GI-13P (6.5-7.0).
			Grey SAND; Dry; No staining; No odor.			0.2	
			Grey CLAY; Dry; No staining; No odor.		0.92	0.2	
			Tan brown CLAYEY SAND; some Gravel; trace Brick; Dry; No staining; No odor.			0.2	
						0.3	
						0.1	
			Grey CLAY; Wet; No staining; No odor.		0.92	0.2	
5			ASPHALT; Dry; No staining; No odor.			0.2	
			Brown CLAY; Dry; No staining; No odor.		0.92	0.2	
			Dark grey CLAY; trace Asphalt and Wood; Wet; No staining; No odor.			0.2	
			Grey CLAY; Wet; No staining; No odor.		0.67	0.5	
						0.5	
10					0	0.5	
			Grey CLAY; some Gravel; Wet; No staining; No odor.			0.2	
					0.67	0.2	
15					0	0.2	
			Grey CLAYEY SAND; some Wood; Wet; No staining; No odor.			0.1	
					1.5	0.1	
						0.1	
20			Bottom of borehole at 20 feet				



Client: Mueser Rutledge Consulting Engineers		Site: Alexandria Waterfront Flood Mitigation		Project Number: 2549.0012Y000	
Address: Union and King Street		City/State: Alexandria, Virginia		Logged By: P. Ni	
Start to Finish Date: 11/17/2021 - 11/17/2021		Contractor: Freestate Drilling		Drill Type: HSA	
Borehole Depth: 20 feet		Backfill: Cuttings		Sampler Type/Method: 2" Split Spoon	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

ROUX STANDARD LOG - 1/21/22 13:30 - \\SRV\ID\YEP1\IN\YSHARED\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
			TOPSOIL; trace Asphalt; trace Brick; Dry; No staining; No odor.		0.63	0.0 0.0 0.0 0.0	
			Dark grey CLAY; trace Asphalt; Dry; No staining; No odor.		0.63	0.1 0.1 0.1 0.1	
			CONCRETE; some Brick; Dry; No staining; No odor.		1		
5			ASPHALT; Moist; No staining; No odor.			0.1 0.3 0.1 0.1	
			Brown CLAY; some Asphalt; Wet; No staining; No odor.		0.5	0.1	Collected soil sample GI-14 (6.5-7.0).
					0		
			Black grey CLAY; trace Fine Sand; trace Asphalt; Wet; No staining; No odor.		1.5	0.2 0.2 0.2	
					0		
			Dark grey CLAY; trace Fine Sand; Wet; No staining; No odor.		1.5	0.2 0.2 0.2	
20			Bottom of borehole at 20 feet				



Client: Mueser Rutledge Consulting Engineers		Site: Alexandria Waterfront Flood Mitigation		Project Number: 2549.0012Y000	
Address: Union and King Street		City/State: Alexandria, Virginia		Logged By: P. Ni	
Start to Finish Date: 11/17/2021 - 11/17/2021		Contractor: Freestate Drilling		Drill Type: HSA	
Borehole Depth: 20 feet		Backfill: Cuttings		Sampler Type/Method: 2" Split Spoon	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

ROUX STANDARD LOG - 1/21/22 13:30 - \\SRV\ID\YEP1\IN\SHARE\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
5			Brown CLAY; Dry; No staining; No odor.	0.42	0.3		Collected soil sample GI-15P (7.0-7.5).
			Red BRICK; Dry; No staining; No odor.	0.75	0.5		
			Brown CLAYEY SAND; trace Asphalt; Dry; No staining; No odor.		0.5		
				0.42	0.5		
			Brown CLAYEY SAND; Dry; No staining; No odor.		0.2		
				2	0.2		
			ASPHALT; Dry; No staining; No odor.		0.2		
				0.92	0.3		
			Brown CLAYEY SAND; Dry; No staining; No odor.		0.3		
				0	0.3		
			Grey SILTY SAND; Wet; No staining; No odor.		0.2		
				1.5	0.1		
		Dark brown CLAYEY SAND; Wet; No staining; No odor.	0.1				
10			Grey SILTY SAND; Wet; No staining; No odor.	0	0.2		
			Dark grey CLAYEY SAND; Wet; No staining; No odor.		0.2		
			Dark grey CLAYEY SAND; Wet; No staining; No odor.		0.2		
15			Dark grey CLAY; trace Fine Sand; Wet; No staining; No odor.	1.5	0.3		
					0.3		
					0.3		
20			Bottom of borehole at 20 feet				



Client: Mueser Rutledge Consulting Engineers		Site: Alexandria Waterfront Flood Mitigation		Project Number: 2549.0012Y000	
Address: Union and King Street		City/State: Alexandria, Virginia		Logged By: M. Carr	
Start to Finish Date: 11/1/2021 - 11/1/2021		Contractor: Freestate Drilling		Drill Type: HSA	
Borehole Depth: 20.5 feet		Backfill: Cuttings		Borehole Diameter: 3-inches	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

ROUX STANDARD LOG - 1/21/22 13:30 - I:\SRV\ID\NYEP1\NYSHARED\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
			TOPSOIL; Dry; No staining; No odor.		0.38	0.9	Collected soil sample PS-02P (5-5.5).
			Brown SILTY SAND; some Gravel; Moist; No staining; Slight odor.			0.2	
						0.2	
						0.4	
			Dark grey SAND; some Silt; trace Gravel; Moist; No staining; Odor.		0.58	1.7	
						1.1	
						0.9	
						0.7	
			Black SILTY SAND; Moist; No staining; Odor.		0.75	38.1	
5		△ △	White and dark grey FILL (GRAVEL and SAND); Moist; No staining; No odor.			199.1	
			Dark grey SILTY SAND; Moist; No staining; No odor.			148.3	
			Dark grey SILTY SAND; Wet; Staining; Odor.		0.5	68.9	
						148.6	
			Black GRAVELLY SAND; Brick Debris; Wet; Staining; Odor.			115.3	
						89.2	
						123.6	
			Dark grey SAND; Wet; No staining; Odor.		0.29	115.6	
						21.4	
10			Dark grey SANDY CLAY; Wet; No staining; Odor.		0	18.8	
						19.1	
			Dark grey fine SAND; Wet; No staining; Odor.			0.44	
						22.2	
						13.3	
						14.9	
15			Grey CLAY; Wet; No staining; Slight odor.		0.78	20.1	
						18.9	
						22.4	
					0		
			Grey CLAY; Wet; No staining; No odor.				
					0.28	0.0	
						0.0	

Bottom of borehole at 20.5 feet



Client: Mueser Rutledge Consulting Engineers		Site: Alexandria Waterfront Flood Mitigation		Project Number: 2549.0012Y000	
Address: Union and King Street		City/State: Alexandria, Virginia		Logged By: M. Carr	
Start to Finish Date: 11/10/2021 - 11/10/2021		Contractor: Freestate Drilling		Drill Type: HSA	
Borehole Depth: 35.5 feet		Backfill: Cuttings		Sampler Type/Method: 2" Split Spoon	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

ROUX STANDARD LOG - 1/21/22 13:30 - \\SRV\ID\YEP1\IN\YSHARED\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
			Brownish grey SANDY CLAY; some Gravel; Moist; No staining; No odor.	0.46	0.3 0.3 0.3		Collected soil sample PS -04P (10.5-11.0).
			WOOD and brown ORGANIC MATERIAL; Moist; No staining; No odor.	0.13	0.3 0.1		
5			WOOD and brown ORGANIC MATERIAL; Wet; No staining; No odor.	0.21	0.1		
			Light brown CLAYEY SAND and GRAVEL; some Wood and Organic Material; Wet; No staining; No odor.	0.33	0.1 0.1		
			Dark grey CLAYEY SAND; some Gravel; Wet; No staining; No odor.	0.46	0.1		
10			Brown grey CLAYEY SAND; some Organic Material; Wet; No staining; No odor.		0.2 0.3 0.4 0.3		
			Dark grey SAND and CLAY; some Gravel; Wet; No staining; No odor.	0			
15			Grey CLAY; some Shells and Wood Debris; Wet; No staining; No odor.	1.5	0.3 0.4 0.3		
				0			
20			Grey CLAY; Wet; No staining; No odor.				
25				0.83	0.3 0.2 0.2		
				0			
30							
35				1.5	0.0 0.0		

Bottom of borehole at 35.5 feet



Client: Mueser Rutledge Consulting Engineers		Site: Alexandria Waterfront Flood Mitigation		Project Number: 2549.0012Y000	
Address: Union and King Street		City/State: Alexandria, Virginia		Logged By: P. Ni	
Start to Finish Date: 11/15/2021 - 11/15/2021		Contractor: Freestate Drilling		Drill Type: HSA	
Borehole Depth: 12.5 feet		Backfill: Cuttings		Borehole Diameter: 3-inches	
Area: NM		Elevation: NM		Northing: NM	
				Sampler Type/Method: 2" Split Spoon	
				DTW:	
				Easting: NM	

ROUX STANDARD LOG - 1/21/22 13:30 - \\SRV\ID\NYEP1\IN\YSHARED\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
			CONCRETE; Dry; No staining; No odor.	0.5	0.0		
			GRAVEL; Dry; No staining; No odor.	0.58	0.3		
			Dark brown CLAYEY SAND; Dry; No staining; No odor.				
				0.58	0.3		
					0.3		
					0.3		
					0.3		
5			Light grey SAND; some Clay; trace Brick; Dry; No staining; No odor.	0.42	0.5		
			Light grey SAND; some Clay; trace Brick; Moist; No staining; No odor.		0.3		
					0.3		
			Dark brown SAND and GRAVEL; trace Clay; Wet; No staining; No odor.	0.08	0.3		Collected soil sample PS-04P (5.5-6.0).
				0			
10			Dark brown SAND and GRAVEL; Wet; No staining; No odor.	0.75	0.1		
			Light grey SAND; Wet; No staining; No odor.		0.1		
			Dark brown WOOD; Wet; No staining; No odor.		0.1		

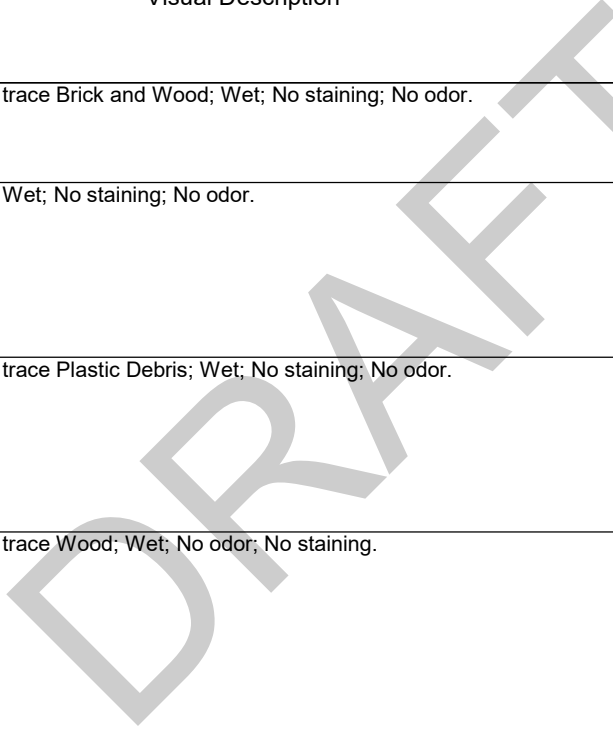
Bottom of borehole at 12.5 feet



Client: Mueser Rutledge Consulting Engineers		Site: Alexandria Waterfront Flood Mitigation		Project Number: 2549.0012Y000	
Address: Union and King Street		City/State: Alexandria, Virginia		Logged By: P. Ni	
Start to Finish Date: 12/3/2021 - 12/3/2021		Contractor: Connelly and Associates, Inc.		Drill Type: Mud Rotary	
Borehole Depth: 20 feet		Backfill: Cuttings		Sampler Type/Method: 2" Split Spoon	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

ROUX STANDARD LOG - 1/21/22 13:30 - \\SRV\ID\NYEP1\NYSHARED\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
			Grey CLAY; trace Brick and Wood; Wet; No staining; No odor.	2	2	0.0 0.0 0.0 0.0 0.0 0.0 0.0	Collected soil sample BH-03 (0.0-0.5).
			Grey CLAY; Wet; No staining; No odor.	2	0	0.0 0.0 0.0	
5			Grey CLAY; trace Plastic Debris; Wet; No staining; No odor.	0.5	0.0 0.0		
10			Grey CLAY; trace Wood; Wet; No odor; No staining.	2	0.0 0.0 0.0		
15			Grey CLAY; Wet; No staining; No odor.	0	0.0 0.0		
20			Bottom of borehole at 20 feet	1.5	0.0 0.0 0.0		

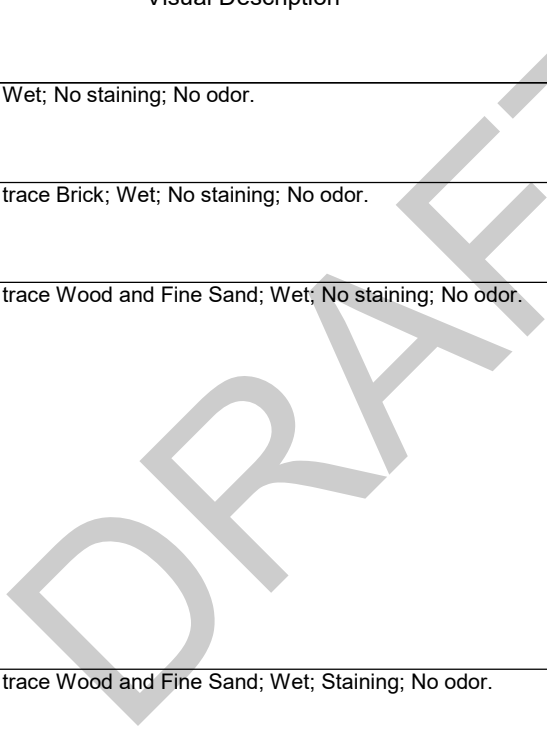




Client: Mueser Rutledge Consulting Engineers		Site: Alexandria Waterfront Flood Mitigation		Project Number: 2549.0012Y000	
Address: Union and King Street		City/State: Alexandria, Virginia		Logged By: P. Ni	
Start to Finish Date: 11/30/2021 - 11/30/2021		Contractor: Connelly and Associates, Inc.		Drill Type: Mud Rotary	
Borehole Depth: 20 feet		Backfill: Cuttings		Sampler Type/Method: 2" Split Spoon	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

ROUX STANDARD LOG - 1/21/22 13:30 - \\SRV\ID\NYEP1\NYSHARED\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
			Grey CLAY; Wet; No staining; No odor.		0.25	0.1	
			Grey CLAY; trace Brick; Wet; No staining; No odor.		2	0.1 0.1 0.1 0.1	
5			Grey CLAY; trace Wood and Fine Sand; Wet; No staining; No odor.		2	0.1 0.1 0.1 0.1	
					0		
					2	0.1 0.1 0.1 0.5	
10					0		
			Grey CLAY; trace Wood and Fine Sand; Wet; Staining; No odor.		1.5	0.5 1.2 4.4 15.3	Collected soil sample BH-10 (14.5-15.0).
15							
			No recovery.				
20			Bottom of borehole at 20 feet				





Client: Mueser Rutledge Consulting Engineers		Site: Alexandria Waterfront Flood Mitigation		Project Number: 2549.0012Y000	
Address: Union and King Street		City/State: Alexandria, Virginia		Logged By: P. Ni	
Start to Finish Date: 12/9/2021 - 12/9/2021		Contractor: Connelly and Associates, Inc.		Drill Type: Mud Rotary	
Borehole Depth: 20 feet		Backfill: Cuttings		Sampler Type/Method: 2" Split Spoon	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

ROUX STANDARD LOG - 1/21/22 13:30 - \\SRV\ID\NYEP1\NYSHARED\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
5			Dark grey CLAY; trace Wood; Wet; No staining; No odor.	2	0.5		Collected soil sample BH-12 (7.5-8.0).
					1.2		
					2.3		
				2	1.5		
					0.5		
					0.2		
					0.2		
					0.2		
					0.2		
					0.2		
10			Dark grey CLAY; trace Wood and Plastic Debris; Wet; No staining; Odor.	2	15.7		
					32.7		
					38.1		
					4.7		
				2	3.2		
					2.2		
					2.1		
					1.7		
					1.5		
					0.4		
15			Dark grey CLAY; trace Shells; Wet; No staining; No odor.				
20			Grey CLAY; Wet; No staining; No odor.				
Bottom of borehole at 20 feet							



Client: Mueser Rutledge Consulting Engineers		Site: Alexandria Waterfront Flood Mitigation		Project Number: 2549.0012Y000	
Address: Union and King Street		City/State: Alexandria, Virginia		Logged By: P. Ni	
Start to Finish Date: 12/20/2021 - 12/20/2021		Contractor: Connelly and Associates, Inc.		Drill Type: Mud Rotary	
Borehole Depth: 20 feet		Backfill: Cuttings		Sampler Type/Method: 2" Split Spoon	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

ROUX STANDARD LOG - 1/21/22 13:30 - \\SRV\DN\YEP1\IN\YSHARED\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
			Dark grey CLAY; Wet; No staining; No odor.	2	2	0.0 0.0 0.0 0.0 0.0 0.0 0.0	Collected soil sample BH-16 (0.0-0.5).
			Dark grey CLAY; trace Wood; Wet; No staining; No odor.	2	0	0.0 0.0 0.0 0.0	
5				2	0	0.0 0.0 0.0 0.0	
			Dark grey CLAY; Wet; No staining; No odor.	2	0	0.0 0.0 0.0 0.0	
10				2	0	0.0 0.0 0.0 0.0	
15				1.5	0	0.0 0.0 0.0	
20			Bottom of borehole at 20 feet				

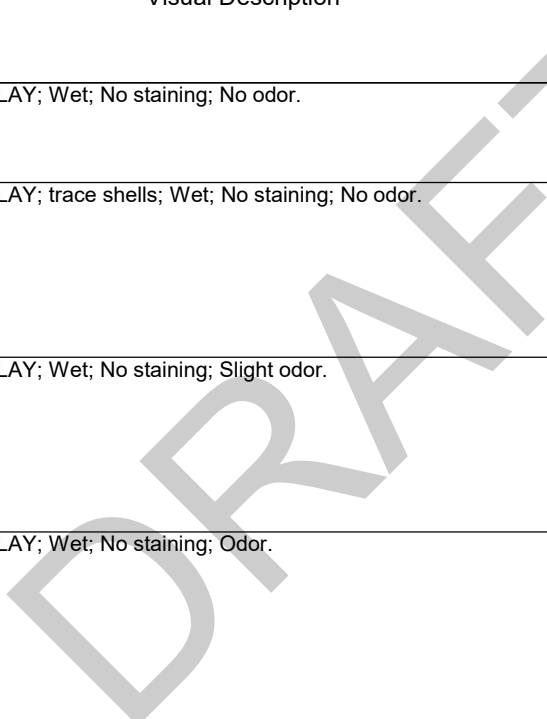
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Client: Mueser Rutledge Consulting Engineers		Site: Alexandria Waterfront Flood Mitigation		Project Number: 2549.0012Y000	
Address: Union and King Street		City/State: Alexandria, Virginia		Logged By: P. Ni	
Start to Finish Date: 12/14/2021 - 12/14/2021		Contractor: Connelly and Associates, Inc.		Drill Type: Mud Rotary	
Borehole Depth: 20 feet		Backfill: Cuttings		Sampler Type/Method: 2" Split Spoon	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

ROUX STANDARD LOG - 1/21/22 13:30 - \\SRV\ID\NYEP1\NYSHARED\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
			Dark grey CLAY; Wet; No staining; No odor.	2	0.0 0.0 0.0 0.0		
			Dark grey CLAY; trace shells; Wet; No staining; No odor.	2	0.0 0.0 0.0		
5			Dark grey CLAY; Wet; No staining; Slight odor.	0			
			Dark grey CLAY; Wet; No staining; Slight odor.	2	0.5 1.1 8.7 4.4		
10			Dark grey CLAY; Wet; No staining; Odor.	2	1.5 1.2 4.5 249.4 186.8		Collected soil sample BH-20 (9.5-10.0).
				0	87.5		
15							
20			Bottom of borehole at 20 feet	1.5	1.8 15.0 19.9 128.0		





Client: Mueser Rutledge Consulting Engineers		Site: Alexandria Waterfront Flood Mitigation		Project Number: 2549.0012Y000	
Address: Union and King Street		City/State: Alexandria, Virginia		Logged By: P. Ni	
Start to Finish Date: 12/15/2021 - 12/15/2021		Contractor: Connelly and Associates, Inc.		Drill Type: Mud Rotary	
Borehole Depth: 20 feet		Backfill: Cuttings		Sampler Type/Method: 2" Split Spoon	
Area: NM		Elevation: NM		Northing: NM	
				Easting: NM	

ROUX STANDARD LOG - 1/21/22 13:30 - \\SRV\ID\NYEP1\NYSHARED\CLIENTS\MUESER RUTLEDGE\ALEXANDRIA\PHASE II\BORING LOGS\ROUX PROJECT TEMPLATE.GPJ

Depth (ft)	USCS	USCS Graphic	Visual Description	Sample Interval	Recovery (ft)	PID	Notes
			Dark grey CLAY; Wet; No staining; No odor.	0.5	0.0		Collected soil sample PS-04 (0.0-0.5).
			Dark grey CLAY; trace Wood; Wet; No staining; No odor.	2	0.0		
5			Dark grey CLAY; Wet; No staining; No odor.	0	0.0		
			Dark grey CLAY; Wet; No staining; No odor.	2	0.0		
10			Dark grey CLAY; Wet; No staining; No odor.	2	0.0		
15			Dark grey CLAY; trace Sand; Wet; No staining; No odor.	0	0.0		
20			Bottom of borehole at 20 feet	2	0.0		

DRAFT