

DRAFT

FILL MATERIAL SAMPLING REPORT

17174 ORLEANS STREET
DETROIT, WAYNE COUNTY, MICHIGAN 48214



FEBRUARY 12, 2026

PREPARED FOR:

THE CITY OF DETROIT DEMOLITION DEPARTMENT

1301 THIRD STREET, SUITE 606

DETROIT, MICHIGAN 48226



FILL MATERIAL SAMPLING REPORT

17174 ORLEANS STREET
DETROIT, WAYNE COUNTY, MICHIGAN 48214

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EXECUTIVE SUMMARY

The Mannik & Smith Group, Inc. (MSG) was retained by the City of Detroit (COD) to perform sampling and analysis of fill materials at the property commonly addressed as 17174 Orleans Street, Detroit, Wayne County, Michigan (hereinafter, the "Site"). The Site location, as referenced to nearby roads and major geographic features, is shown on Figure 1, *Site Location Map*. Figure 2, *Site Layout*, depicts the current layout of the Site.

This Executive Summary is provided to summarize the results of the work performed at the Site. The Executive Summary is general in nature and should not be used to replace or be considered apart from the entirety of this report.

The purpose of the work was to assist the COD's blight remediation efforts with the sampling and analysis of fill material at the Site through soil sample collection from pre-determined depths, as described in the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025. Sample analyses associated with this work included volatile organic compounds (VOCs); semi-volatile organic compounds (SVOCs); polychlorinated biphenyls (PCBs); arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc (10 Michigan metals); chloride; herbicides; and pesticides. Analytical results were compared to the current generic residential cleanup criteria (GRCC) promulgated under Part 201 of the *Natural Resources and Environmental Protection Act* (NREPA), 1994 P.A. 451, as amended (Part 201).

Pursuant to a request by the COD, MSG has completed sampling and analysis of fill material at the Site, as described in the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025. Results of this work, which are subject to the limitations presented in *Appendix A, Limitations*, incorporated by reference herewith, revealed the following:

- The stratigraphy encountered during soil boring advancement of 17174 SB01, 17174 SB02, and 17174 SB03 generally consisted of brown silty clay to six (6) feet below ground surface (bgs), the maximum depth explored for this investigation. Field photoionization detector (PID) readings of the recovered soil cores were below instrument detection limits. There were no visual (staining) and/or olfactory (e.g., petroleum-like odors) indications of contamination observed during soil sampling activities; however, concrete debris was observed in 17174 SB01.
- Concentrations of arsenic and chromium (Total) were detected in soil samples 17174 SB01 (1-2')_20260116, 17174 SB02 (3-4')_20260116, and/or 17174 SB03 (5-6')_20260116 in excess of Part 201 groundwater surface water interface protection criteria (GSIPC) and/or drinking water protection criteria (DWPC).
- Concentrations of 4,4'-DDE, barium, benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, chloride, chlordane technical, copper, fluoranthene, indeno(1,2,3-cd)pyrene, lead, mercury, pyrene, and zinc were detected in soil samples 17174 SB01 (1-2')_20260116, 17174 SB02 (3-4')_20260116, and/or 17174 SB03 (5-6')_20260116 at concentrations above laboratory method detection limits; however, detected concentrations were below their respective Part 201 GRCC and/or Statewide Default Background Levels.
- VOCs, PCBs, and herbicides were not detected above laboratory method detection reporting limits.
- Groundwater was not encountered during soil boring activities completed as part of this investigation. Groundwater is not utilized as drinking water at or near the Site, as municipal water is supplied via the COD, and the general geology of the Site and surrounding area consists of fill materials underlain by clay overlying bedrock. Therefore, the drinking water (DW) exposure pathway can be considered not applicable. Additionally, groundwater was not encountered during this investigation to transport contaminants to either storm sewers or surface water and the clay layer also inhibits migration. Therefore, the groundwater surface water exposure pathway can be considered not applicable.

MSG has evaluated the analytical results of the fill material. Based upon the analytical results, we have determined that the material is contaminated above the state's Part 201 GRCC, as applicable.

MSG warrants that no substantive information or documentation was deleted, omitted, or changed that would otherwise cause the MSG to reach a different conclusion. Furthermore, MSG understands that the COD and its agencies and authorities may rely upon the overall completeness, accuracy, and conclusions in this report and hereby provides reliance on the contents presented herein.

DRAFT

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1.0 INTRODUCTION

The Mannik & Smith Group, Inc. (MSG) was retained by the City of Detroit (COD) to conduct sampling and analysis of fill materials at the property commonly addressed as 17174 Orleans Street, Detroit, Wayne County, Michigan (hereinafter, the "Site"). The Site location as referenced to nearby roads and major geographic features is presented as *Figure 1, Site Location Map*. *Figure 2, Site Layout*, depicts the current layout of the Site.

The purpose of this work was to assist the COD's blight remediation efforts with the sampling and analysis of fill material at the Site through soil sample collection from pre-determined depths. The scope of work for this investigation was performed in general accordance with the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025. This report presents the findings of this investigation. Soil samples were collected by MSG on January 16, 2026. The findings of this report are valid as of the report date, subject to the limitations presented in *Appendix A, Limitations*.

At the time of this investigation, the Site was vacant and formerly occupied by residential structures. Former Site building(s) had been demolished as part of the Blight Removal Program prior to commencement of this work.

2.0 PURPOSE AND SCOPE OF WORK

The purpose of the work was to assist the COD's blight remediation efforts with the sampling and analysis of fill material at the Site through soil sample collection from pre-determined depths, as described in the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025, and modified in the field (when necessary) based on encountered conditions and professional judgment of the MSG field geologist.

MSG performed the following scope of work in general accordance with the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025:

- Advanced three (3) onsite soil borings to a maximum depth of six feet below ground surface (bgs) utilizing a direct push drill rig at the locations depicted on *Figure 2*.
- Collected one (1) discrete soil sample for laboratory analysis from each soil boring at a depth of 1-2 feet bgs, 3-4 feet bgs, or 5-6 feet bgs, depending on the soil boring.
- Submitted soil samples to an independent analytical laboratory for chemical analysis.
- Prepared this report summarizing the activities and results of this work.

Per the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025, sample analyses included volatile organic compounds (VOCs); semi-volatile organic compounds (SVOCs); polychlorinated biphenyls (PCBs); arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc (10 Michigan metals); chloride; herbicides; and pesticides. Soil sample analytical results were compared to the current generic residential cleanup criteria (GRCC) promulgated under Part 201 of the *Natural Resources and Environmental Protection Act* (NREPA), 1994 P.A. 451, as amended (Part 201).

3.0 SITE ASSESSMENT METHODOLOGY

The following subsections describe the methodologies employed by MSG at the Site during sampling activities that were conducted on January 16, 2026. A daily field activity report prepared by MSG is presented in *Appendix B, Daily Field Report*.

3.1 Preliminary Site Work Activities

Prior to conducting subsurface soil sampling activities, MSG contacted the MISSDIG utility locating system to identify and physically mark underground utilities. If necessary, proposed soil boring locations were modified based on the results of the utility markings. Additionally, MSG reviewed readily available Site building records or documents to ensure that this scope of work was conducted on the correct property and in the areas of the former Site structure.

3.2 Soil Sample Collection

The sampling plan for the Site was based on the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025, and modified in the field (if necessary) based on encountered conditions and professional judgment of MSG's field personnel. MSG advanced three (3) soil borings, designated 17174 SB01, 17174 SB02, and 17174 SB03, using a direct push drill rig at the locations depicted on Figure 2. Photographs collected during the completion of this work are provided in *Appendix C, Investigation Photographs*.

Soils were continuously profiled at each soil boring location from the ground surface to the termination depth of six feet bgs using a 5-foot long, closed-piston Macro-Core® sampling device. A new disposable high-density polyethylene (HDPE) liner was placed within the sampler between each 5-foot sample interval. The recovered soil samples were examined and logged in the field by the MSG field geologist. The soils were classified by MSG's field geologist in general accordance with ASTM D 2488, *Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)*. Soil descriptions were based on visual examination and interpretation by the field geologist.

Soil samples were examined for visual and olfactory indications of impact in accordance with the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025, and were continuously screened upon retrieval of each sample interval with a MiniRAE 10.6 electron volt (eV) photoionization detector (PID) calibrated with isobutylene span gas. The PID measures the concentration of airborne ionizable gasses and vapors and automatically displays any detected concentrations in parts per million (PPM). The PID measures total concentrations of VOC vapors present and cannot distinguish between individual VOC constituents. PID readings for each sample interval were recorded on the individual soil boring logs, which are included in *Appendix D, Soil Boring Logs*.

Soil samples were collected in general accordance with the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025. The soil samples were placed into appropriate pre-preserved and unpreserved laboratory-supplied sample containers, as appropriate for the associated laboratory analyses. Soil samples collected for VOC analysis were placed in laboratory supplied pre-tared 40-milliliter (ml) vials with septum-sealed threaded caps that were pre-preserved with methanol provided by the analytical laboratory. Groundwater was not encountered during the investigation.

3.3 Decontamination

Before initiation of sampling and drilling activities and between each sampling/soil boring, equipment was cleaned to avoid the potential for cross-contamination during field activities. Pertinent equipment and tooling were thoroughly cleaned using a phosphate-free soap to remove chemical residue and caked-on soils. After sample collection was completed, each soil boring location was abandoned with the soil cuttings generated at each soil boring location and finished to match the original surface.

3.4 Analytical Methods

A total of three (3) soil samples designated 17174 SB01 (1-2')_20260116, 17174 SB02 (3-4')_20260116, and 17174 SB03 (5-6')_20260116, were collected as part of this investigation. These soil samples were submitted to ALS Environmental Laboratory (ALS) in Holland, Michigan for laboratory analysis of the following parameters per the requested parameters as described in the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025:

- VOCs by United States Environmental Protection Agency (USEPA) Method SW8260D;
- SVOCs by USEPA Method SW8270E;
- PCBs by USEPA Method SW8082A;
- 10 Michigan metals by USEPA Method SW6020B and SW7471B;
- Chloride by USEPA Method SW9056A;
- Herbicides by USEPA Method SW8151A; and
- Pesticides by USEPA Method SW8081B.

3.5 Quality Assurance/Quality Control

Quality assurance and quality control (QA/QC) was achieved in the field by using MSG's standard operating procedures (SOPs) for sample collection, sample screening, sample preservation, and chain-of-custody protocols to ensure sample integrity. Per the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025, duplicate soil samples and field blanks were not collected.

Laboratory QC was achieved by using standard analytical methods, the analyses of spiked and laboratory quality control samples, and the use of internal laboratory quality assurance protocols. Review of the laboratory's QC data indicated the validity of the data and that it is able to be used for assessing soil samples collected during this work.

4.0 SUMMARY OF RESULTS

The following subsections include a discussion of the soil samples that were collected from the Site on January 16, 2026.

4.1 Site Geology and Hydrogeology

The stratigraphy encountered during soil boring advancement of 17174 SB01, 17174 SB02, and 17174 SB03 generally consisted of brown silty clay to six (6) feet below ground surface (bgs), the maximum depth explored for this investigation. Field photoionization detector (PID) readings of the recovered soil cores were below instrument detection limits. There were no visual (staining) and/or olfactory (e.g., petroleum-like odors) indications of contamination observed during soil sampling activities; however, concrete debris was observed in 17174 SB01.

Groundwater was not encountered during soil boring activities completed as part of this investigation.

4.2 Soil Sample Analytical Results

Three (3) soil samples, designated 17174 SB01 (1-2')_20260116, 17174 SB02 (3-4')_20260116, and 17174 SB03 (5-6')_20260116, were collected from the Site and submitted to ALS for laboratory analysis of VOCs, SVOCs, PCBs, Michigan 10 Metals, chloride, herbicides, and pesticides.

The analytical results and comparisons to applicable Part 201 GRCC are summarized in *Table 1, Soil Sample Analytical Detection Summary*. Copies of the laboratory analytical data reports and chain of custody forms are included in *Appendix E, Laboratory Analytical Reports and Chain of Custody Forms*.

A summary of the soil sample analytical detections in excess of Part 201 GRCC is provided below:

Chemical	CAS Number	Soil Sample (feet bgs)	Part 201 GRCC Exceeded / Concentration ($\mu\text{g}/\text{kg}^1$)	Maximum Detected Concentration ($\mu\text{g}/\text{kg}$)
Arsenic	7440-38-2	17174 SB01 (1-2)_20260116 17174 SB03 (5-6)_20260116	GSIPC ² / 4,600 DWPC ³ / 4,600	7,130
Chromium (Total)	7440-47-3	17174 SB01 (1-2)_20260116 17174 SB02 (3-4)_20260116	GSIPC / 3,300 DWPC / 30,000	43,300

¹ $\mu\text{g}/\text{kg}$ – micrograms per kilogram;

²GSIPC – Groundwater Surface Water Interface Protection Criteria

³DWPC – Drinking Water Protection Criteria

4.3 Exposure Evaluation

MSG has completed a preliminary evaluation for the Site and associated exposure pathways. Cleanup criteria are applicable if it is reasonable and relevant for the corresponding exposure pathway to be or become complete.

Groundwater was not encountered during soil boring activities completed as part of this investigation. Groundwater is not utilized as drinking water at or near the Site, as municipal water is supplied via the COD, and the general geology

of the Site and surrounding area consists of fill materials underlain by clay overlying bedrock. Therefore, the drinking water (DW) exposure pathway can be considered not applicable. Additionally, groundwater was not encountered during this investigation to transport contaminants to either storm sewers or surface water and the clay layer also inhibits migration, therefore, the groundwater surface water exposure pathway can be considered not applicable.

5.0 FINDINGS

MSG has evaluated the analytical results of the fill material samples collected at the Site in general accordance with the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025. The findings of this investigation are presented below:

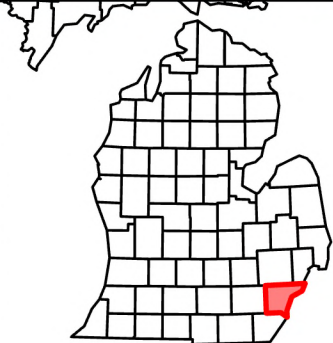
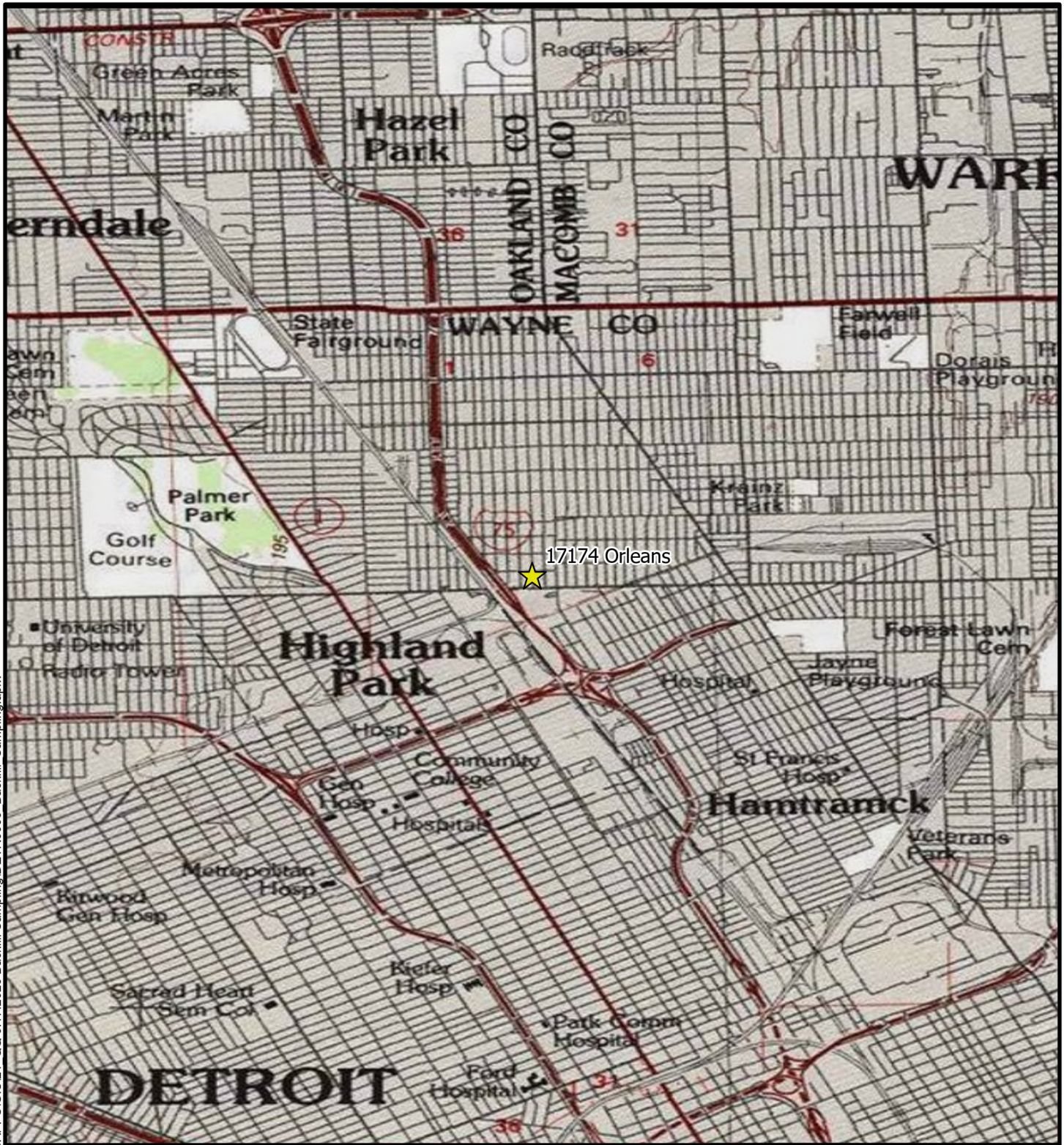
- The stratigraphy encountered during soil boring advancement of 17174 SB01, 17174 SB02, and 17174 SB03 generally consisted of brown silty clay to six (6) feet below ground surface (bgs), the maximum depth explored for this investigation. Field photoionization detector (PID) readings of the recovered soil cores were below instrument detection limits. There were no visual (staining) and/or olfactory (e.g., petroleum-like odors) indications of contamination observed during soil sampling activities; however, concrete debris was observed in 17174 SB01.
- Concentrations of arsenic and chromium (Total) were detected in soil samples 17174 SB01 (1-2')_20260116, 17174 SB02 (3-4')_20260116, and/or 17174 SB03 (5-6')_20260116 in excess of Part 201 GSIPC and/or DWPC.
- Concentrations of arsenic, barium, benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, chloride, chlordane technical, chromium (Total), copper, fluoranthene, indeno(1,2,3-cd)pyrene, lead, mercury, P,P'-DDE, pyrene, and zinc were detected in soil samples 17174 SB01 (1-2')_20260116, 17174 SB02 (3-4')_20260116, and/or 17174 SB03 (5-6')_20260116 at concentrations above laboratory method detection limits; however, detected concentrations were below their respective Part 201 GRCC and/or Statewide Default Background Levels.
- VOCs, PCBs, and herbicides were not detected above laboratory method detection reporting limits.
- Groundwater was not encountered during soil boring activities completed as part of this investigation. Groundwater is not utilized as drinking water at or near the Site, as municipal water is supplied via the COD, and the general geology of the Site and surrounding area consists of fill materials underlain by clay overlying bedrock. Therefore, the drinking water (DW) exposure pathway can be considered not applicable. Additionally, groundwater was not encountered during this investigation to transport contaminants to either storm sewers or surface water and the clay layer also inhibits migration. Therefore, the groundwater surface water exposure pathway can be considered not applicable.

MSG has evaluated the analytical results of the fill material. Based upon the analytical results, we have determined that the material is contaminated above the state's Part 201 GRCC, as applicable.

MSG warrants that no substantive information or documentation was deleted, omitted, or changed that would otherwise cause the MSG to reach a different conclusion. Furthermore, MSG understands that the COD and its agencies and authorities may rely upon the overall completeness, accuracy, and conclusions in this report and hereby provides reliance on the contents presented herein.

FIGURES





★ Site Location



FIGURE 1
SITE LOCATION

17174 Orleans, Detroit, MI

DATE 1/8/2026	DRAWN BY JWW	DESIGNED BY JWW	PROJECT NO. DETRO060
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- Sample Locations
- ▭ Parcels (Current)
- ▭ Subject Property

Notes
• Parcel boundaries are approximate
• Basemap Credits: SampleLocations:
GPS_Test:
All Roads:
Parcels (Current):
Wayne - 2020 - 6in - 4-band:



FIGURE 2
Site Layout

17174 Orleans, Detroit, MI

DATE 1/6/2026	DRAWN BY JWW	DESIGNED BY KRB	PROJECT NO. DETR0060
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TABLE



Table 1
Soil Sample Analytical Detection Summary

Detroit Backfill Sampling
17174 Orleans, Detroit, Michigan

SOIL: Part 201/213 Generic Residential Cleanup Criteria Revised October 12, 2023 and Volatilization to Indoor Air Pathway Screening Levels Revised February 26, 2024			Inorganic Anions/Ions	Metals						Pesticides		Semivolatile Organic Compounds (SVOCs)								
			Chloride	Arsenic (B)	Barium (B)	Chromium, Total (B)	Copper (B)	Lead (B)	Mercury (B)	Zinc (B)	Chlordane, technical	4,4'-DDE	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Fluoranthene	Indeno(1,2,3-Cd)Pyrene	Pyrene	
CAS Number			16887-00-6	7440-38-2	7440-39-3	7440-47-3	7440-50-8	7439-92-1	7439-97-6	7440-66-6	12789-03-6	72-55-9	56-55-3	50-32-8	205-99-2	191-24-2	206-44-0	193-39-5	129-00-0	
Units			ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Statewide Default Background Levels			NC	5,800	75,000	18,000	32,000	21,000	130	47,000	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Drinking Water Protection Criteria (DWPC)			5.00E+06	4,600	1.30E+06	30,000	5.80E+06	7.00E+05	1,700	2.40E+06	NC	NLL	NLL	NLL	NLL	NLL	7.30E+05	NLL	4.80E+05	
Groundwater Surface Water Interface Protection Criteria (GSIPC)			NC	4,600	4.40E+05 ^(G)	3,300	75,000 ^(G)	6.00E+06 ^(G)	50 ^(M;1.2)	1.60E+05	NC	NLL	NLL	NLL	NLL	NLL	5,500	NLL	ID	
Soil Volatilization to Indoor Air Inhalation (SVIIC)			NC	NLV	NLV	NC	NLV	NLV	48,000	NC	NC	NLV	NLV	NLV	ID	NLV	1.00E+09	NLV	1.00E+09	
Soil Volatilization to Indoor Air Pathway (SVIAP)			NC	NC	NC	NC	NC	NC	22 ^(M)	NC	NC	39,000	1.60E+05 ^(M)	NC	NC	NC	NC	NC	2.50E+07	
Infinite Source Volatile Soil Inhalation Criteria (VSIC)			NC	NLV	NLV	NC	NLV	NLV	52,000	NC	NC	NLV	NLV	NLV	ID	NLV	7.40E+08	NLV	6.50E+08	
Finite Source Volatile Soil Inhalation Criteria (5 m) (VSIC 5m)			NC	NLV	NLV	NC	NLV	NLV	52,000	NC	NC	NLV	NLV	NLV	ID	NLV	7.40E+08	NLV	6.50E+08	
Finite Source Volatile Soil Inhalation Criteria (2 m) (VSIC 2m)			NC	NLV	NLV	NC	NLV	NLV	52,000	NC	NC	NLV	NLV	NLV	ID	NLV	7.40E+08	NLV	6.50E+08	
Particulate Soil Inhalation Criteria (PSIC)			NC	7.20E+05	3.30E+08	2.60E+05	1.30E+08	1.00E+08	2.00E+07	NC	NC	3.20E+07	ID	1.50E+06	ID	8.00E+08	9.30E+09	ID	6.70E+09	
Direct Contact Criteria (DCC)			5.00E+05	7,600	3.70E+07	2.50E+06	2.00E+07	4.00E+05	1.60E+05	1.70E+08	NC	45,000	20,000	2,000	20,000	2.50E+06	4.60E+07	20,000	2.90E+07	
Soil Saturation Concentration Screening Levels (Csat)			NC	NA	NA	NC	NA	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NA	NA	
Sample ID	Sample Depth (ft)	Sample Date																		
17174 SB01	1.0 - 2.0	01/16/2026	20,300	6,400	106,000	18,600	16,000	40,900	24.4	73,200	122	55.1	23.9	27.9	33.8	25.9	29.9	27.9	29.9	
17174 SB02	3.0 - 4.0	01/16/2026	46,000	4,330	66,100	43,300	11,800	16,200	26.5	41,100	<28.9	42.3	25.5	29.4	33.3	33.3	35.3	33.3	31.4	
17174 SB03	5.0 - 6.0	01/16/2026	13,600	7,130	32,700	13,000	11,200	7,340	39.9	40,500	<26.1	<17.4	<16.2	<11.5	<14	<14.4	<9.03	<13.1	<9.38	

Notes

Only parameters with one or more detections are shown.

ug/kg = Micrograms per Kilogram.

Exceeds Generic Drinking Water Protection Criteria.

Exceeds Groundwater Surface Water Interface Protection Criteria.

Exceeds Applicable Soil Vapor Inhalation Criteria/Screening Levels.

Exceeds Two or More DWPC, GSIPC, and/or Applicable Soil Vapor Inhalation Criteria/Screening Levels.

Exceeds PSIC, DCC, and/or Csat, likely exceeds others.

Bold indicates concentration above laboratory reporting limits.

NC = No Criteria; NA = Not Applicable; NLV = Not Likely to Volatize; NLL = Not Likely to Leach.

Part 201 GSIPC Hardness specific criteria (G) calculated using a regional hardness value

of the lower portion of the lower peninsula, 150 mg CaCO3/L.

Notes in parentheses and standard abbreviations from Part 201 Rules 299.1

through 299.50, updated October 12, 2023.

APPENDIX A

LIMITATIONS



LIMITATIONS

This investigation and related documentation are site-specific, which means they pertain to the environmental conditions of the Site only.

The Mannik & Smith Group, Inc. (MSG) performed its services associated with the investigation in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in these reports are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

Contaminants may be hidden in subsurface material, covered by pavement, vegetation, or other substances. Additionally, contamination may not be present in predictable locations. MSG has prepared a logical investigation program to reduce the client's risk of discovering unknown contamination. This risk may be reduced by more extensive exploration on the Site. Even with additional exploration, it is not possible to completely eliminate the risk of discovering contamination on the Site. It can not be assumed that samples collected and conditions observed are representative of an area that has not been sampled and/or tested.

Some environmental assessments are undertaken to satisfy "due diligence", "all appropriate inquiry," or other regulatory requirements provided in federal, state, or local law. Although MSG strives to investigate a site in accordance with the scope of work as defined by written agreement with a client, it cannot warrant that the work undertaken for this report with satisfy "due diligence", "all appropriate inquiry," or any other similar standard under any federal, state, or local law.

Due to changing environmental regulatory conditions and potential on-site activities after the completion of investigation, the client may rely upon the conditions within this investigation report for a period of six months from the report's issuance date.

APPENDIX B

DAILY FIELD REPORT





DAILY FIELD REPORT

Client: City of Detroit Demolition Department
Project: Sampling and Analysis of Fill Material

Report No.: 1
Job No.: DETR0060

Date: <u>01/16/2026</u>	Day: <u>Friday</u>	Temp: <u>24° F</u> (AM) <u>15° F</u> (PM)	
MSG Personnel: <u>EJH, KDW, MW</u>	Cloud Cover: <u>N/A</u> (AM) <u>0%</u> (PM)	Precip.: <u>N/A</u> (AM) <u>Light Snow</u> (PM)	
Personnel: <u>MSG</u>			
MSG Hours On-Site: <u>~ 1 hour</u>			
Contractors Information			
Contractor: <u>MSG</u>		No. Men and Type: <u>3; Operator/Helper/Geologist</u>	
		Equipment Type: <u>Geoprobe 7822DT</u>	
Summary of Work Performed:			
- Advanced three (3) onsite soil borings to a maximum depth of 6 feet below ground surface (bgs) - Collected soil samples from each soil boring (from the interval with the greatest potential to be impacted based on field indicators).			
Field Notes:			
1332 – EJH, KDW, and MW onsite (17174 Orleans Street) 1339 – Unloaded equipment and marked out boring locations and began drilling SB01 1343 – Sampled 17174 SB01 (1-2') 1347 – Began drilling SB02 1351 – Sampled 17174 SB02 (3-4') 1353 – Began drilling SB03 1400 – Sampled 17174 SB03 (5-6') 1415 – MSG off site			

Supporting Documentation								
	Yes	No		Yes	No		Yes	No
Photograph Taken	☒	☐	Samples Collected	☒	☐	Boring/MW Logs	☒	☐
Photo Log Attached	☒	☐	COC Attached	☒	☐	Field Note Book Taken	☒	☐
Problem Identification and Corrective Measures								
<u>N/A</u>								
Resolved? Yes ☐ No ☐								

APPENDIX C

INVESTIGATION PHOTOGRAPHS





Photo 1: View of the Site surroundings pre-drilling, facing east.



Photo 2: Viewing the soil recovery from 17174 SB01, facing east.

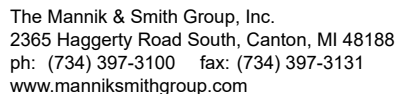


Photo 3: Viewing the soil recovery from 17174 SB02, facing east.

APPENDIX D

SOIL BORING LOGS





Sheet 1 of 1

REMARKS _____

DEPTH (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS	
	ES	68		Brown, Silty CLAY, Concrete Debris, Dry	0	Collected Soil Sample 17174 SB01 (1-2') _20260116 at 1343	
			2.0	Brown, CLAY, Dry	0		
							0
5							0
			6.0	Terminated at 6.00 ft.			0
10							

LEGEND:

▽ AT TIME OF DRILLING	Not Encountered
▼ AT END OF DRILLING	
▼ AFTER DRILLING	



The Mannik & Smith Group, Inc.
2365 Haggerty Road South, Canton, MI 48188
ph: (734) 397-3100 fax: (734) 397-3131
www.manniksmithgroup.com

BOREHOLE NUMBER SB02

Sheet 1 of 1

CLIENT City of Detroit
PROJECT NUMBER DETR0060_17174 Orleans
DATE STARTED 01-16-2026 **COMPLETED** 01-16-2026
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT GeoProbe 7822DT **Operator** MW

PROJECT NAME Backfill Soil Sampling
PROJECT LOCATION 17174 Orleans, Detroit, MI
POSITION
SURFACE ELEVATION **FINAL DEPTH** 6.0 ft
LOGGED BY EJH **CHECKED BY** SCD
REMARKS

DEPTH (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
				Brown, Silty CLAY, Dry	0	
				2.0	0	
				Brown, CLAY, Dry		
ES		74			0	Collected Soil Sample 17174 SB02 (3-4') _20260116 at 1351
					0	
5					0	
					0	
				6.0		
				Terminated at 6.00 ft.		
10						

LEGEND:

- ▽ AT TIME OF DRILLING Not Encountered
▼ AT END OF DRILLING
▽ AFTER DRILLING



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BOREHOLE NUMBER SB03

Sheet 1 of 1

CLIENT City of Detroit

PROJECT NAME Backfill Soil Sampling

PROJECT NUMBER DETR0060_17174 Orleans

PROJECT LOCATION 17174 Orleans, Detroit, MI

DATE STARTED 01-16-2026 **COMPLETED** 01-16-2026

POSITION

DRILLING CONTRACTOR MSG

SURFACE ELEVATION **FINAL DEPTH** 6.0 ft

DRILLING METHOD Direct Push

LOGGED BY EJH **CHECKED BY** SCD

EQUIPMENT GeoProbe 7822DT **Operator** MW

REMARKS

DEPTH (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
				Brown, Silty CLAY, Dry	0	
				2.0	0	
				Brown, CLAY, Dry	0	
ES		83			0	
					0	
5					0	Collected Soil Sample 17174 SB03 (5-6') _20260116 at 1400
					0	
				6.0		
				Terminated at 6.00 ft.		
10						

LEGEND:

- ▽ AT TIME OF DRILLING Not Encountered
- ▼ AT END OF DRILLING
- ▽ AFTER DRILLING

APPENDIX E

LABORATORY ANALYTICAL REPORTS AND CHAIN OF CUSTODY FORMS





right solutions.
right partner.

January 26, 2026

Ryan Montri
The Mannik & Smith Group, Inc.
2365 Haggerty Road South
Suite 100
Canton, MI 48188

Re: **17174 Orleans**

Date Received: **01/17/2026**

Work Order: **HN2600829**

Dear Ryan,

Enclosed are the results of the sample(s) submitted to our laboratory.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Kathy Jones-Gronda

/S/ KATHY JONES-GRONDA

Project Manager



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans

Work Order: HN2600829
Date Received: 17-Jan-2026

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt

3 soil/solid samples were received for analysis at ALS Environmental on 17-Jan-2026. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

WorkOrder: HN2600829

Soil/solid results are reported on a dry-weight basis, corrected using laboratory-determined percent moisture content, unless explicitly identified otherwise.

Organics

EPA 8260D-FULL HN-5035A-10mL-S

Run ID: 3833207

The Continuing Calibration Verification did not meet acceptance criteria with low bias. Instrument sensitivity was verified as sufficient through the analysis of a low-level standard. The following non-detects are reported without qualification: Chloroethane (Ethyl chloride), Dichlorodifluoromethane (Freon-12), Methyl bromide (Bromomethane), Trichlorofluoromethane (Fluorotrichloromethane, Freon 11), Vinyl chloride (Chloroethene)

Parent Sample HN2600829-001: QC-2422019-005 and -006: The MS/MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: tetrachloroethene
QC-2422019-002 The LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for this analyte: tetrachloroethene

Parent Sample HN2600829-001: QC-2422019-005 and -006: The MS/MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: see qc report

EPA 8270E-FULL HN-3546-S

Run ID: 3835774

The Continuing Calibration Verification did not meet acceptance criteria with low bias. Instrument sensitivity was verified as sufficient through the analysis of a low-level standard. The following non-detects are reported without qualification: Atrazine.

The Continuing Calibration Verification did not meet acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: 2,4-Dinitrophenol; 4,6-Dinitro-2-Methylphenol; Benzoic acid; Di-n-octylphthalate.

EPA 8081B-3546-S (High)

Run ID: 3833201

Samples HN2600829-001 through -003: The Continuing Calibration Verification did not meet acceptance criteria with low bias. Instrument sensitivity was verified as sufficient through the analysis of a low-level standard. The following non-detects are reported without qualification: 4,4'-DDT, Methoxychlor

Metals

EPA 6020B-3050B-S

Run ID: 3836789

Parent sample HN2600829-001: The MS/MSD recovery was outside of the control limit; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Ba, Pb, Zn Batch 2426110

Parent Sample HN2600829-001: The MS/MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: As, Cr, Cu batch 2426110

Samples HN2600829-001 through -003: The reporting limits are elevated for Cd, Se and Ag due to the dilutions needed for high concentrations of non-target analytes.

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: 17174 SB01 (1-2')_2026 0116			Lab ID: HN2600829-001		
--	--	--	-----------------------	--	--

Analyte	Results	Flag	MRL	Units	Method
4,4'-DDE	55.1		27.4	µg/kg	EPA 8081B
Arsenic	6.40	S	3.56	mg/kg	EPA 6020B
Barium	106		3.56	mg/kg	EPA 6020B
Benzo(a)anthracene	23.9		19.9	µg/kg	EPA 8270E
Benzo(a)pyrene	27.9		19.9	µg/kg	EPA 8270E
Benzo(b)fluoranthene	33.8		19.9	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	25.9		19.9	µg/kg	EPA 8270E
Chlordane, Technical	122		68.4	µg/kg	EPA 8081B
Chloride	20.3		11.9	mg/kg	EPA 9056A
Chromium	18.6	S	3.56	mg/kg	EPA 6020B
Copper	16.0	S	3.56	mg/kg	EPA 6020B
Fluoranthene	29.9		19.9	µg/kg	EPA 8270E
Indeno(1,2,3-cd) pyrene	27.9		19.9	µg/kg	EPA 8270E
Lead	40.9		3.56	mg/kg	EPA 6020B
Mercury	0.0244		0.0200	mg/kg	EPA 7471B
Percent Moisture	15.3		0.1	%	EPA 3550C
Pyrene	29.9		19.9	µg/kg	EPA 8270E
Zinc	73.2		7.11	mg/kg	EPA 6020B

CLIENT ID: 17174 SB02 (3-4')_2026 0116			Lab ID: HN2600829-002		
--	--	--	-----------------------	--	--

Analyte	Results	Flag	MRL	Units	Method
4,4'-DDE	42.3		29.2	µg/kg	EPA 8081B
Arsenic	4.33		3.66	mg/kg	EPA 6020B
Barium	66.1		3.66	mg/kg	EPA 6020B
Benzo(a)anthracene	25.5		19.6	µg/kg	EPA 8270E
Benzo(a)pyrene	29.4		19.6	µg/kg	EPA 8270E
Benzo(b)fluoranthene	33.3		19.6	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	33.3		19.6	µg/kg	EPA 8270E
Chloride	46.0		14.0	mg/kg	EPA 9056A
Chromium	43.3		3.66	mg/kg	EPA 6020B
Copper	11.8		3.66	mg/kg	EPA 6020B
Fluoranthene	35.3		19.6	µg/kg	EPA 8270E
Indeno(1,2,3-cd) pyrene	33.3		19.6	µg/kg	EPA 8270E
Lead	16.2		3.66	mg/kg	EPA 6020B
Mercury	0.0265		0.0233	mg/kg	EPA 7471B
Percent Moisture	18.0		0.1	%	EPA 3550C
Pyrene	31.4		19.6	µg/kg	EPA 8270E
Zinc	41.1		7.31	mg/kg	EPA 6020B

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: 17174 SB03 (5-6')_2026 0116

Lab ID: HN2600829-003

Analyte	Results	Flag	MRL	Units	Method
Arsenic	7.13		2.96	mg/kg	EPA 6020B
Barium	32.7		2.96	mg/kg	EPA 6020B
Chloride	13.6		12.3	mg/kg	EPA 9056A
Chromium	13.0		2.96	mg/kg	EPA 6020B
Copper	11.2		2.96	mg/kg	EPA 6020B
Lead	7.34		2.96	mg/kg	EPA 6020B
Mercury	0.0399		0.0200	mg/kg	EPA 7471B
Percent Moisture	11.7		0.1	%	EPA 3550C
Zinc	40.5		5.91	mg/kg	EPA 6020B

SAMPLE SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Workorder: HN2600829

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2600829-001	17174 SB01 (1-2')_2026 0116	SOIL/SOLID	01/16/26 13:43	01/17/26 08:00
HN2600829-002	17174 SB02 (3-4')_2026 0116	SOIL/SOLID	01/16/26 13:51	01/17/26 08:00
HN2600829-003	17174 SB03 (5-6')_2026 0116	SOIL/SOLID	01/16/26 14:00	01/17/26 08:00



ALS Environmental

Laboratory location:

Chain of Custody Form

Page ____ of ____

Customer Information		ALS Project Manager:						Work Order #:												
Project Information		Parameter/Method Request for Analysis																		
Purchase Order		Project Name	17174 Orleans						A	VOCs (U.S. EPA Method 8260C (or Method 8260))										
Work Order		Project Number	DETR0060						B	SVOCs (U.S. EPA Method 8270D (or Method 8270))										
Company Name	Mannik Smith Group	Bill To Company	Mannik Smith Group						C	PCBs (U.S. EPA Method 8082)										
Send Report To	Ryan Montri and Olivia Mitchell	Invoice Attn.							D	Mi 10 Metals (U.S. EPA 6000/7000 Series Methods)										
Address	2365 South Haggerty Road	Address	2365 South Haggerty Road						E	Chorides (U.S. EPA Method 9056A)										
City/State/Zip	Canton, Mi 48188	City/State/Zip	Canton, Mi 48188						F	Pesticides (U.S. EPA Method 8081B (or Method 8081))										
Phone	734-397-3100	Phone	734-397-3100						G	Herbicides (U.S. EPA Method 8151A (or Method 8151))										
Fax		Fax							H											
e-Mail Address	rmontri@manniksmithgroup.com	e-Mail Address	omitchell@manniksmithgroup.com						I											
									J											
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold			
1	17174 SB01 (2')_2026 01/6	1/16/26	1343	Soil	7	3	✓	✓	✓	✓	✓	✓	✓							
2	17174 SB02 (3-4')_2026 01/6	1/16/26	1351	Soil	7	3	✓	✓	✓	✓	✓	✓	✓							
3	17174 SB03 (5-6')_2026 01/6	1/16/26	1400	Soil	7	3	✓	✓	✓	✓	✓	✓	✓							
4																				
5																				
6																				
7																				
8																				
9																				
10																				
Sampler(s): Please Print & Sign		Shipment Method:		Required Turnaround Time:																
Eric Hagg (MSG) 1/16/26				☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour																
Relinquished by:	Date:	Time:	Received by:	Notes:																
Eric Hagg (MSG) 1/16/26	1/16/26	1515	N. Smith 1/16 1515																	
Relinquished by:	Date:	Time:	Received by (Laboratory):																	
AS 1/17	1/17	1700	CS 1/16 1700																	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):																	
AS 1/17	1/17	1430																		
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035				Cooler Temp. 2.1°C																
				QC Package: (Check Box Below)																
				☐ Level II: Standard QC ☐ TRRP-Checklist																
				☐ Level III: Std QC + Raw Data ☐ TRRP Level IV																
				☐ Level IV: SW846 CLP-Like																
				Other:																

Environmental Division
Holland

Work Order Reference

HN2600829



Telephone : +1 616 399 6070

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.

Signature denotes acceptance of ALS Group USA, Corp. Terms and Conditions - Please click the link below for detailed Terms & Conditions:

<https://www.alsglobal.com/ALSGroupUSACorpTC>

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ALS Holland
3352 128th Ave., Holland MI 49424

ALS Holland Sample Receiving Checklist

Received by: BC

Date/Time: 1/17/24 08:00

Carrier Name: GS

Shipping container/cooler in good condition? Yes / No / Not Present

Custody seals intact on shipping container/cooler? Yes / No / Not Present

Custody seals intact on sample bottles? Yes / No / Not Present

Chain of Custody present? Yes / No

COC signed when relinquished and received? Yes / No

COC agrees with sample labels? Yes / No

Samples in proper container/bottle? Yes / No

Sample containers intact? Yes / No

Sufficient sample volume for indicated test? Yes / No

All samples received within holding time? Yes / No

Container/Temp Blank temperature in compliance? Yes / No

Temperature(s) (°C): 2.1°C

Thermometer(s): 127

Sample(s) received on ice? Yes / No

Matrix/Matrices: Soil

Cooler(s)/Kit(s): 1

Date/Time sample(s) sent to storage: 1/17/24

Water – VOA vials have zero headspace? Yes / No / No Vials

Water – pH acceptable upon receipt? Yes / No / N/A

pH strip lot #: _____ < 2 _____ > 12 _____ Other _____

pH adjusted (note adjustments below)? Yes / No / N/A

pH adjusted by: _____

Login Notes:

--

HN-SHT-160-R01, Sample Receipt Checklist

REPORT QUALIFIERS AND DEFINITIONS

*	Value exceeds Regulatory Limit (if MCL displayed)
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
NC	Not Calculated
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
V	The Continuing Calibration Verification was outside of control criteria
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Holland Laboratory Certifications¹

Agency	Type	ID	Issued	Expires
Alabama	Drinking Water (Secondary)	42500	12/17/2024	12/31/2025
Colorado	UST		07/01/2025	06/30/2026
Connecticut	Drinking Water (Secondary)	PH-0155	12/10/2024	12/31/2026
Florida	NELAP (Primary)	E871106	07/01/2025	06/30/2026
Illinois	NELAP (Secondary)	200076	11/14/2024	12/31/2025
Indiana	Drinking Water (Secondary)	C-MI-08	12/31/2024	09/04/2026
Iowa	State Specific	403	09/01/2025	09/01/2027
Kansas	NELAP (Secondary)	E-10411	08/01/2025	07/31/2026
Kentucky	Waste Water	KY98004	12/20/2024	12/31/2025
Kentucky	UST	120474	07/07/2025	06/30/2026
Michigan	Drinking Water (Primary)	0022	12/19/2023	09/04/2026
Minnesota	NELAP (Secondary)	026-999-449	12/17/2024	12/31/2025
Missouri	Drinking Water (Secondary)	01262	11/14/2024	12/30/2027
New Jersey	NELAP (Secondary)	MI015	07/01/2025	6/30/2026
New York	NELAP (Secondary)	12128	04/01/2025	04/01/2026
North Dakota	State Specific	R-192	11/18/2024	06/30/2025
Ohio	Drinking Water (Secondary)	87783	06/26/2025	6/30/2026
Pennsylvania	NELAP (Secondary)	68-03827	11/25/2025	07/31/2026
Texas	NELAP (Secondary)	T104704494	02/12/2025	01/31/2026
USDA	Domestic CA	Soil-MI-007	02/06/2025	08/07/2026
USDA	Soil Import	525-23-62-77572	03/03/2023	03/03/2026
West Virginia	State Specific	355	06/07/2025	08/31/2026
Wisconsin	State Specific	399084510	08/08/2025	08/31/2026

¹ - Scope available upon request

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans

Work Order: HN2600829

Sample Name: 17174 SB01 (1-2')_2026 0116
Laboratory Code: HN2600829-001
Sample Matrix: SOIL/SOLID

Date Collected: 01/16/26
Date Received: 01/17/26

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		001-AA	2422981		3830350	Nicole Maleski
EPA 6020B	EPA 3050B	001-AA	2426110	Weston Kotecki	3836789	Hunter Johnson
EPA 7471B	Method	001-AA	2426368	Maxx Richey	3838239	Maxx Richey
EPA 8081B	EPA 3546	001-AA	2421584	Mya Harmer	3833201	Madison VandenBer
EPA 8081B	EPA 3546	001-AA	2421584	Mya Harmer	3842234	Madison VandenBer
EPA 8082A	EPA 3546	001-AA	2421581	Mya Harmer	3831072	Madison VandenBer
EPA 8151A	Method	001-AA	2421623	Rachel Plantinga	3836904	Sam Bruzan
EPA 8260D	EPA 5035A	001-AB	2422019	Jonathan Vazquez	3833207	John Garvale
EPA 8270E	EPA 3546	001-AA	2422965	Benjamin Farmer	3835774	Taryn Van Wyngarde
EPA 9056A	EPA 9056A	001-AA	2422190	Kelsey Beaudette	3829590	Riley Miller

Sample Name: 17174 SB02 (3-4')_2026 0116
Laboratory Code: HN2600829-002
Sample Matrix: SOIL/SOLID

Date Collected: 01/16/26
Date Received: 01/17/26

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		002-AA	2422981		3830350	Nicole Maleski
EPA 6020B	EPA 3050B	002-AA	2426110	Weston Kotecki	3836789	Hunter Johnson
EPA 7471B	Method	002-AA	2426368	Maxx Richey	3838239	Maxx Richey
EPA 8081B	EPA 3546	002-AA	2421584	Mya Harmer	3833201	Madison VandenBer
EPA 8081B	EPA 3546	002-AA	2421584	Mya Harmer	3842234	Madison VandenBer
EPA 8082A	EPA 3546	002-AA	2421581	Mya Harmer	3831072	Madison VandenBer
EPA 8151A	Method	002-AA	2421623	Rachel Plantinga	3836904	Sam Bruzan
EPA 8260D	EPA 5035A	002-AB	2422019	Jonathan Vazquez	3833207	John Garvale
EPA 8270E	EPA 3546	002-AA	2422965	Benjamin Farmer	3835774	Taryn Van Wyngarde
EPA 9056A	EPA 9056A	002-AA	2422190	Kelsey Beaudette	3829590	Riley Miller

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans

Work Order: HN2600829

Sample Name: 17174 SB03 (5-6')_2026 0116
Laboratory Code: HN2600829-003
Sample Matrix: SOIL/SOLID

Date Collected: 01/16/26
Date Received: 01/17/26

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		003-AA	2422981		3830350	Nicole Maleski
EPA 6020B	EPA 3050B	003-AA	2426110	Weston Kotecki	3836789	Hunter Johnson
EPA 7471B	Method	003-AA	2426662	Maxx Richey	3838239	Maxx Richey
EPA 8081B	EPA 3546	003-AA	2421584	Mya Harmer	3833201	Madison VandenBer
EPA 8082A	EPA 3546	003-AA	2421581	Mya Harmer	3831072	Madison VandenBer
EPA 8151A	Method	003-AA	2421623	Rachel Plantinga	3836904	Sam Bruzan
EPA 8260D	EPA 5035A	003-AB	2422019	Jonathan Vazquez	3833207	John Garvale
EPA 8270E	EPA 3546	003-AA	2422965	Benjamin Farmer	3835774	Taryn Van Wyngarde
EPA 9056A	EPA 9056A	003-AA	2422190	Kelsey Beaudette	3829590	Riley Miller

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 13:43
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB01 (1-2')_2026 0116

Lab ID: HN2600829-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorinated Herbicides by GC/ECD								
2,4,5-T	EPA 8151A	<2.13	U	µg/kg	11.6	1	01/21/26 19:48	01/19/26 08:37
2,4,5-TP (Silvex)	EPA 8151A	<3.79	U	µg/kg	11.6	1	01/21/26 19:48	01/19/26 08:37
2,4-D	EPA 8151A	<6.17	U	µg/kg	23.1	1	01/21/26 19:48	01/19/26 08:37
Surr: DCAA	EPA 8151A	52.0		%REC	10-116	1	01/21/26 19:48	01/19/26 08:37
General Chemistry Parameters								
Percent Moisture	EPA 3550C	15.3		%	0.1	1	01/20/26 13:16	NA
Chloride	EPA 9056A	20.3		mg/kg	11.9	1	01/20/26 07:05	01/19/26 14:38
Metals								
Arsenic	EPA 6020B	6.40	S	mg/kg	3.56	10	01/22/26 15:58	01/22/26 09:18
Barium	EPA 6020B	106		mg/kg	3.56	10	01/22/26 15:58	01/22/26 09:18
Cadmium	EPA 6020B	<0.213	U	mg/kg	1.42	10	01/22/26 15:58	01/22/26 09:18
Chromium	EPA 6020B	18.6	S	mg/kg	3.56	10	01/22/26 15:58	01/22/26 09:18
Copper	EPA 6020B	16.0	S	mg/kg	3.56	10	01/22/26 15:58	01/22/26 09:18
Lead	EPA 6020B	40.9		mg/kg	3.56	10	01/22/26 15:58	01/22/26 09:18
Selenium	EPA 6020B	<3.27	U	mg/kg	3.56	10	01/22/26 15:58	01/22/26 09:18
Silver	EPA 6020B	<0.469	U	mg/kg	3.56	10	01/22/26 15:58	01/22/26 09:18
Zinc	EPA 6020B	73.2		mg/kg	7.11	10	01/22/26 15:58	01/22/26 09:18
Mercury	EPA 7471B	0.0244		mg/kg	0.0200	1	01/23/26 12:42	01/22/26 13:59
Organochlorine Pesticides by GC/ECD								
4,4'-DDD	EPA 8081B	<17.5	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
4,4'-DDE	EPA 8081B	55.1		µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
4,4'-DDT	EPA 8081B	<18.2	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
Aldrin	EPA 8081B	<17.8	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
alpha-BHC	EPA 8081B	<18.0	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
beta-BHC	EPA 8081B	<18.0	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
Chlordane, Technical	EPA 8081B	122		µg/kg	68.4	1	01/23/26 22:51	01/19/26 08:04
cis-Chlordane	EPA 8081B	<18.3	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
delta-BHC	EPA 8081B	<17.9	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
Dieldrin	EPA 8081B	<19.1	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 13:43
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB01 (1-2')_2026 0116

Lab ID: HN2600829-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Endosulfan I	EPA 8081B	<18.4	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
Endosulfan II	EPA 8081B	<18.1	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
Endosulfan sulfate	EPA 8081B	<16.8	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
Endrin	EPA 8081B	<22.1	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
Endrin aldehyde	EPA 8081B	<17.3	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
Endrin ketone	EPA 8081B	<16.7	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
gamma-BHC (Lindane)	EPA 8081B	<18.0	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
Heptachlor	EPA 8081B	<17.7	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
Heptachlor epoxide	EPA 8081B	<18.1	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
Methoxychlor	EPA 8081B	<18.3	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
Toxaphene	EPA 8081B	<29.6	U	µg/kg	164	1	01/20/26 20:43	01/19/26 08:04
trans-Chlordane	EPA 8081B	<18.2	U	µg/kg	27.4	1	01/20/26 20:43	01/19/26 08:04
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	119		%REC	53-151	1	01/20/26 20:43	01/19/26 08:04
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	81.9		%REC	67-127	1	01/20/26 20:43	01/19/26 08:04

Polychlorinated Biphenyls (PCBs) by GC/ECD

Aroclor 1016	EPA 8082A	<62.6	U	µg/kg	182	1	01/20/26 05:50	01/19/26 07:47
Aroclor 1221	EPA 8082A	<62.6	U	µg/kg	182	1	01/20/26 05:50	01/19/26 07:47
Aroclor 1232	EPA 8082A	<62.6	U	µg/kg	182	1	01/20/26 05:50	01/19/26 07:47
Aroclor 1242	EPA 8082A	<62.6	U	µg/kg	182	1	01/20/26 05:50	01/19/26 07:47
Aroclor 1248	EPA 8082A	<62.6	U	µg/kg	182	1	01/20/26 05:50	01/19/26 07:47
Aroclor 1254	EPA 8082A	<51.0	U	µg/kg	182	1	01/20/26 05:50	01/19/26 07:47
Aroclor 1260	EPA 8082A	<51.0	U	µg/kg	182	1	01/20/26 05:50	01/19/26 07:47
Aroclor 1262	EPA 8082A	<51.0	U	µg/kg	182	1	01/20/26 05:50	01/19/26 07:47
Aroclor 1268	EPA 8082A	<51.0	U	µg/kg	182	1	01/20/26 05:50	01/19/26 07:47
Total PCB	EPA 8082A	<51.0	U	µg/kg	182	1	01/20/26 05:50	01/19/26 07:47
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	120		%REC	54-146	1	01/20/26 05:50	01/19/26 07:47
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	99.8		%REC	58-140	1	01/20/26 05:50	01/19/26 07:47

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	<16.2	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
1,2,4,5-Tetrachlorobenzene	EPA 8270E	<23.0	U	µg/kg	994	1	01/21/26 18:38	01/20/26 13:29

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 13:43
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB01 (1-2')_2026 0116

Lab ID: HN2600829-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	<71.4	U	µg/kg	498	1	01/21/26 18:38	01/20/26 13:29
1-Methylnaphthalene	EPA 8270E	<14.3	U	µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	EPA 8270E	<23.3	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
2,3,4,6-Tetrachlorophenol	EPA 8270E	<72.9	U	µg/kg	199	1	01/21/26 18:38	01/20/26 13:29
2,4,5-Trichlorophenol	EPA 8270E	<59.0	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
2,4,6-Trichlorophenol	EPA 8270E	<26.5	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
2,4-Dichlorophenol	EPA 8270E	<53.6	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
2,4-Dimethylphenol	EPA 8270E	<51.2	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
2,4-Dinitrophenol	EPA 8270E	<728	U	µg/kg	994	1	01/21/26 18:38	01/20/26 13:29
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	<64.6	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	<25.4	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
2-Chloronaphthalene	EPA 8270E	<13.9	U	µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
2-Chlorophenol	EPA 8270E	<65.1	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	<83.1	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
2-Methylnaphthalene	EPA 8270E	<10.1	U	µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
2-Methylphenol (o-Cresol)	EPA 8270E	<26.9	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
2-Nitroaniline	EPA 8270E	<55.3	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
2-Nitrophenol	EPA 8270E	<28.4	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
3&4-Methylphenol	EPA 8270E	<54.3	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
3,3'-Dichlorobenzidine	EPA 8270E	<46.5	U	µg/kg	498	1	01/21/26 18:38	01/20/26 13:29
3-Nitroaniline	EPA 8270E	<57.8	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	<54.5	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
4-Chloro-3-methylphenol	EPA 8270E	<28.4	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
4-Chloroaniline	EPA 8270E	<50.6	U	µg/kg	199	1	01/21/26 18:38	01/20/26 13:29
4-Chlorophenyl phenylether	EPA 8270E	<27.5	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
4-Nitroaniline	EPA 8270E	<154	U	µg/kg	498	1	01/21/26 18:38	01/20/26 13:29
4-Nitrophenol	EPA 8270E	<233	U	µg/kg	994	1	01/21/26 18:38	01/20/26 13:29
Acenaphthene	EPA 8270E	<14.4	U	µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 13:43
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB01 (1-2')_2026 0116

Lab ID: HN2600829-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Acenaphthylene	EPA 8270E	<17.3	U	µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
Acetophenone	EPA 8270E	<15.6	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Anthracene	EPA 8270E	<14.0	U	µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
Atrazine	EPA 8270E	<58.3	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Benzaldehyde	EPA 8270E	<153	U	µg/kg	199	1	01/21/26 18:38	01/20/26 13:29
Benzo(a)anthracene	EPA 8270E	23.9		µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
Benzo(a)pyrene	EPA 8270E	27.9		µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
Benzo(b)fluoranthene	EPA 8270E	33.8		µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
Benzo(g,h,i)perylene	EPA 8270E	25.9		µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
Benzo(k)fluoranthene	EPA 8270E	<15.1	U	µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
bis(2-Chloroethoxy) methane	EPA 8270E	<63.0	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
bis(2-Chloroethyl) ether	EPA 8270E	<28.2	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Butyl benzyl phthalate	EPA 8270E	<125	U	µg/kg	199	1	01/21/26 18:38	01/20/26 13:29
Caprolactam	EPA 8270E	<89.8	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Carbazole	EPA 8270E	<29.3	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Chrysene	EPA 8270E	<16.1	U	µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	EPA 8270E	<82.3	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Dibenz(a,h) anthracene	EPA 8270E	<10.7	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Dibenzofuran	EPA 8270E	<14.6	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Diethyl phthalate	EPA 8270E	<33.9	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Dimethyl phthalate	EPA 8270E	<19.4	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Fluoranthene	EPA 8270E	29.9		µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
Fluorene	EPA 8270E	<14.5	U	µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
Hexachlorobenzene	EPA 8270E	<29.0	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Hexachlorobutadiene	EPA 8270E	<23.4	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Hexachlorocyclopentadiene	EPA 8270E	<94.4	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Hexachloroethane	EPA 8270E	<41.2	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Indeno(1,2,3-cd) pyrene	EPA 8270E	27.9		µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
Isophorone	EPA 8270E	<19.4	U	µg/kg	498	1	01/21/26 18:38	01/20/26 13:29
Methylphenol, Total	EPA 8270E	<26.9	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 13:43
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB01 (1-2')_2026 0116

Lab ID: HN2600829-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Naphthalene	EPA 8270E	<12.7	U	µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
Nitrobenzene	EPA 8270E	<33.4	U	µg/kg	498	1	01/21/26 18:38	01/20/26 13:29
n-Nitrosodi-n-propylamine	EPA 8270E	<16.4	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
N-Nitrosodiphenylamine	EPA 8270E	<57.6	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Pentachlorophenol	EPA 8270E	<79.1	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Phenanthrene	EPA 8270E	<9.26	U	µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
Phenol	EPA 8270E	<50.0	U	µg/kg	98.5	1	01/21/26 18:38	01/20/26 13:29
Pyrene	EPA 8270E	29.9		µg/kg	19.9	1	01/21/26 18:38	01/20/26 13:29
Pyridine	EPA 8270E	<196	U	µg/kg	498	1	01/21/26 18:38	01/20/26 13:29
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	67.6		%REC	48-94	1	01/21/26 18:38	01/20/26 13:29
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	72.3		%REC	50-103	1	01/21/26 18:38	01/20/26 13:29
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	75.4		%REC	43-105	1	01/21/26 18:38	01/20/26 13:29
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	75.9		%REC	55-111	1	01/21/26 18:38	01/20/26 13:29
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	88.8		%REC	47-100	1	01/21/26 18:38	01/20/26 13:29
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	75.2		%REC	49-110	1	01/21/26 18:38	01/20/26 13:29

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	<18.7	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
1,1,2,2-Tetrachloroethane	EPA 8260D	<18.2	SU	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	<26.1	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
1,1,2-Trichloroethane	EPA 8260D	<17.5	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
1,1-Dichloroethane	EPA 8260D	<15.0	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
1,1-Dichloroethylene	EPA 8260D	<13.4	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
1,2,3-Trichlorobenzene	EPA 8260D	<49.5	U	µg/kg	137	1	01/20/26 16:38	01/19/26 12:25
1,2,3-Trichloropropane	EPA 8260D	<17.3	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
1,2,4-Trichlorobenzene	EPA 8260D	<46.7	U	µg/kg	137	1	01/20/26 16:38	01/19/26 12:25
1,2,4-Trimethylbenzene	EPA 8260D	<30.2	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	<38.0	U	µg/kg	137	1	01/20/26 16:38	01/19/26 12:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	<24.2	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	<15.6	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 13:43
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB01 (1-2')_2026 0116

Lab ID: HN2600829-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	<24.2	U	µg/kg	137	1	01/20/26 16:38	01/19/26 12:25
1,2-Dichloropropane	EPA 8260D	<30.4	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
1,3,5-Trimethylbenzene	EPA 8260D	<29.1	U	µg/kg	137	1	01/20/26 16:38	01/19/26 12:25
1,3-Dichlorobenzene (m- Dichlorobenzene)	EPA 8260D	<28.5	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
1,3-Dichloropropene	EPA 8260D	<23.0	U	µg/kg	82.4	1	01/20/26 16:38	01/19/26 12:25
1,4-Dichlorobenzene (p- Dichlorobenzene)	EPA 8260D	<33.5	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	<98.1	U	µg/kg	275	1	01/20/26 16:38	01/19/26 12:25
2-Hexanone	EPA 8260D	<20.4	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	<38.4	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Acetone	EPA 8260D	<122	U	µg/kg	137	1	01/20/26 16:38	01/19/26 12:25
Benzene	EPA 8260D	<20.0	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Bromochloromethane	EPA 8260D	<21.0	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Bromodichloromethane	EPA 8260D	<23.1	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Bromoform	EPA 8260D	<17.4	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Carbon disulfide	EPA 8260D	<21.3	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Carbon tetrachloride	EPA 8260D	<16.1	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Chlorobenzene	EPA 8260D	<13.7	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Chlorodibromomethane	EPA 8260D	<23.2	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Chloroethane (Ethyl chloride)	EPA 8260D	<115	SU	µg/kg	137	1	01/20/26 16:38	01/19/26 12:25
Chloroform	EPA 8260D	<15.1	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
cis-1,2-Dichloroethylene	EPA 8260D	<26.5	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
cis-1,3-Dichloropropene	EPA 8260D	<31.1	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Cyclohexane	EPA 8260D	<31.6	U	µg/kg	137	1	01/20/26 16:38	01/19/26 12:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	<49.9	SU	µg/kg	137	1	01/20/26 16:38	01/19/26 12:25
Ethylbenzene	EPA 8260D	<29.2	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Isopropylbenzene	EPA 8260D	<26.0	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
m+p-Xylene	EPA 8260D	<55.0	U	µg/kg	82.4	1	01/20/26 16:38	01/19/26 12:25
Methyl acetate	EPA 8260D	<49.4	U	µg/kg	344	1	01/20/26 16:38	01/19/26 12:25
Methyl bromide (Bromomethane)	EPA 8260D	<78.8	SU	µg/kg	137	1	01/20/26 16:38	01/19/26 12:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 13:43
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB01 (1-2')_2026 0116

Lab ID: HN2600829-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methyl chloride (Chloromethane)	EPA 8260D	<113	U	µg/kg	137	1	01/20/26 16:38	01/19/26 12:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	<30.1	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Methylcyclohexane	EPA 8260D	<15.7	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Methylene chloride (Dichloromethane)	EPA 8260D	<109	SU	µg/kg	344	1	01/20/26 16:38	01/19/26 12:25
o-Xylene	EPA 8260D	<15.9	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Styrene	EPA 8260D	<16.3	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	<24.8	SU	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Toluene	EPA 8260D	<34.0	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Total Xylene	EPA 8260D	<15.9	U	µg/kg	124	1	01/20/26 16:38	01/19/26 12:25
trans-1,2-Dichloroethylene	EPA 8260D	<34.0	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
trans-1,3-Dichloropropylene	EPA 8260D	<23.0	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Trichloroethene (Trichloroethylene)	EPA 8260D	<18.5	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	<21.1	U	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
Vinyl chloride (Chloroethene)	EPA 8260D	<27.4	SU	µg/kg	41.2	1	01/20/26 16:38	01/19/26 12:25
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	98.6		%REC	<i>80-120</i>	<i>1</i>	<i>01/20/26 16:38</i>	<i>01/19/26 12:25</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	101		%REC	<i>80-120</i>	<i>1</i>	<i>01/20/26 16:38</i>	<i>01/19/26 12:25</i>
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	97.4		%REC	<i>72-120</i>	<i>1</i>	<i>01/20/26 16:38</i>	<i>01/19/26 12:25</i>
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	98.6		%REC	<i>80-120</i>	<i>1</i>	<i>01/20/26 16:38</i>	<i>01/19/26 12:25</i>

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 13:51
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB02 (3-4')_2026 0116

Lab ID: HN2600829-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorinated Herbicides by GC/ECD								
2,4,5-T	EPA 8151A	<2.22	U	µg/kg	12.1	1	01/21/26 20:03	01/19/26 08:37
2,4,5-TP (Silvex)	EPA 8151A	<3.95	U	µg/kg	12.1	1	01/21/26 20:03	01/19/26 08:37
2,4-D	EPA 8151A	<6.44	U	µg/kg	24.1	1	01/21/26 20:03	01/19/26 08:37
Surr: DCAA	EPA 8151A	66.0		%REC	10-116	1	01/21/26 20:03	01/19/26 08:37
General Chemistry Parameters								
Percent Moisture	EPA 3550C	18.0		%	0.1	1	01/20/26 13:16	NA
Chloride	EPA 9056A	46.0		mg/kg	14.0	1	01/20/26 07:13	01/19/26 14:38
Metals								
Arsenic	EPA 6020B	4.33		mg/kg	3.66	10	01/22/26 16:12	01/22/26 09:18
Barium	EPA 6020B	66.1		mg/kg	3.66	10	01/22/26 16:12	01/22/26 09:18
Cadmium	EPA 6020B	<0.219	U	mg/kg	1.46	10	01/22/26 16:12	01/22/26 09:18
Chromium	EPA 6020B	43.3		mg/kg	3.66	10	01/22/26 16:12	01/22/26 09:18
Copper	EPA 6020B	11.8		mg/kg	3.66	10	01/22/26 16:12	01/22/26 09:18
Lead	EPA 6020B	16.2		mg/kg	3.66	10	01/22/26 16:12	01/22/26 09:18
Selenium	EPA 6020B	<3.36	U	mg/kg	3.66	10	01/22/26 16:12	01/22/26 09:18
Silver	EPA 6020B	<0.483	U	mg/kg	3.66	10	01/22/26 16:12	01/22/26 09:18
Zinc	EPA 6020B	41.1		mg/kg	7.31	10	01/22/26 16:12	01/22/26 09:18
Mercury	EPA 7471B	0.0265		mg/kg	0.0233	1	01/23/26 12:43	01/22/26 13:59
Organochlorine Pesticides by GC/ECD								
4,4'-DDD	EPA 8081B	<18.6	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
4,4'-DDE	EPA 8081B	42.3		µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
4,4'-DDT	EPA 8081B	<19.4	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
Aldrin	EPA 8081B	<19.0	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
alpha-BHC	EPA 8081B	<19.2	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
beta-BHC	EPA 8081B	<19.2	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
Chlordane, Technical	EPA 8081B	<28.9	U	µg/kg	72.9	1	01/23/26 23:06	01/19/26 08:04
cis-Chlordane	EPA 8081B	<19.5	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
delta-BHC	EPA 8081B	<19.1	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
Dieldrin	EPA 8081B	<20.4	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 13:51
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB02 (3-4')_2026 0116

Lab ID: HN2600829-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Endosulfan I	EPA 8081B	<19.6	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
Endosulfan II	EPA 8081B	<19.3	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
Endosulfan sulfate	EPA 8081B	<17.9	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
Endrin	EPA 8081B	<23.6	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
Endrin aldehyde	EPA 8081B	<18.5	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
Endrin ketone	EPA 8081B	<17.8	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
gamma-BHC (Lindane)	EPA 8081B	<19.1	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
Heptachlor	EPA 8081B	<18.8	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
Heptachlor epoxide	EPA 8081B	<19.3	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
Methoxychlor	EPA 8081B	<19.5	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
Toxaphene	EPA 8081B	<31.5	U	µg/kg	175	1	01/20/26 20:57	01/19/26 08:04
trans-Chlordane	EPA 8081B	<19.4	U	µg/kg	29.2	1	01/20/26 20:57	01/19/26 08:04
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	109		%REC	53-151	1	01/20/26 20:57	01/19/26 08:04
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	81.3		%REC	67-127	1	01/20/26 20:57	01/19/26 08:04

Polychlorinated Biphenyls (PCBs) by GC/ECD

Aroclor 1016	EPA 8082A	<66.7	U	µg/kg	195	1	01/20/26 06:25	01/19/26 07:47
Aroclor 1221	EPA 8082A	<66.7	U	µg/kg	195	1	01/20/26 06:25	01/19/26 07:47
Aroclor 1232	EPA 8082A	<66.7	U	µg/kg	195	1	01/20/26 06:25	01/19/26 07:47
Aroclor 1242	EPA 8082A	<66.7	U	µg/kg	195	1	01/20/26 06:25	01/19/26 07:47
Aroclor 1248	EPA 8082A	<66.7	U	µg/kg	195	1	01/20/26 06:25	01/19/26 07:47
Aroclor 1254	EPA 8082A	<54.3	U	µg/kg	195	1	01/20/26 06:25	01/19/26 07:47
Aroclor 1260	EPA 8082A	<54.3	U	µg/kg	195	1	01/20/26 06:25	01/19/26 07:47
Aroclor 1262	EPA 8082A	<54.3	U	µg/kg	195	1	01/20/26 06:25	01/19/26 07:47
Aroclor 1268	EPA 8082A	<54.3	U	µg/kg	195	1	01/20/26 06:25	01/19/26 07:47
Total PCB	EPA 8082A	<54.3	U	µg/kg	195	1	01/20/26 06:25	01/19/26 07:47
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	115		%REC	54-146	1	01/20/26 06:25	01/19/26 07:47
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	96.4		%REC	58-140	1	01/20/26 06:25	01/19/26 07:47

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	<15.9	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
1,2,4,5-Tetrachlorobenzene	EPA 8270E	<22.6	U	µg/kg	979	1	01/21/26 18:59	01/20/26 13:29

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 13:51
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB02 (3-4')_2026 0116

Lab ID: HN2600829-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	<70.3	U	µg/kg	490	1	01/21/26 18:59	01/20/26 13:29
1-Methylnaphthalene	EPA 8270E	<14.1	U	µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	EPA 8270E	<23.0	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
2,3,4,6-Tetrachlorophenol	EPA 8270E	<71.8	U	µg/kg	196	1	01/21/26 18:59	01/20/26 13:29
2,4,5-Trichlorophenol	EPA 8270E	<58.1	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
2,4,6-Trichlorophenol	EPA 8270E	<26.1	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
2,4-Dichlorophenol	EPA 8270E	<52.8	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
2,4-Dimethylphenol	EPA 8270E	<50.4	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
2,4-Dinitrophenol	EPA 8270E	<717	U	µg/kg	979	1	01/21/26 18:59	01/20/26 13:29
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	<63.7	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	<25.0	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
2-Chloronaphthalene	EPA 8270E	<13.7	U	µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
2-Chlorophenol	EPA 8270E	<64.1	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	<81.9	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
2-Methylnaphthalene	EPA 8270E	<9.97	U	µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
2-Methylphenol (o-Cresol)	EPA 8270E	<26.5	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
2-Nitroaniline	EPA 8270E	<54.4	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
2-Nitrophenol	EPA 8270E	<27.9	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
3&4-Methylphenol	EPA 8270E	<53.4	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
3,3'-Dichlorobenzidine	EPA 8270E	<45.8	U	µg/kg	490	1	01/21/26 18:59	01/20/26 13:29
3-Nitroaniline	EPA 8270E	<56.9	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	<53.7	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
4-Chloro-3-methylphenol	EPA 8270E	<27.9	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
4-Chloroaniline	EPA 8270E	<49.8	U	µg/kg	196	1	01/21/26 18:59	01/20/26 13:29
4-Chlorophenyl phenylether	EPA 8270E	<27.1	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
4-Nitroaniline	EPA 8270E	<152	U	µg/kg	490	1	01/21/26 18:59	01/20/26 13:29
4-Nitrophenol	EPA 8270E	<230	U	µg/kg	979	1	01/21/26 18:59	01/20/26 13:29
Acenaphthene	EPA 8270E	<14.2	U	µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 13:51
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB02 (3-4')_2026 0116

Lab ID: HN2600829-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Acenaphthylene	EPA 8270E	<17.0	U	µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
Acetophenone	EPA 8270E	<15.4	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Anthracene	EPA 8270E	<13.8	U	µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
Atrazine	EPA 8270E	<57.4	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Benzaldehyde	EPA 8270E	<151	U	µg/kg	196	1	01/21/26 18:59	01/20/26 13:29
Benzo(a)anthracene	EPA 8270E	25.5		µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
Benzo(a)pyrene	EPA 8270E	29.4		µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
Benzo(b)fluoranthene	EPA 8270E	33.3		µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
Benzo(g,h,i)perylene	EPA 8270E	33.3		µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
Benzo(k)fluoranthene	EPA 8270E	<14.9	U	µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
bis(2-Chloroethoxy) methane	EPA 8270E	<62.1	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
bis(2-Chloroethyl) ether	EPA 8270E	<27.8	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Butyl benzyl phthalate	EPA 8270E	<123	U	µg/kg	196	1	01/21/26 18:59	01/20/26 13:29
Caprolactam	EPA 8270E	<88.5	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Carbazole	EPA 8270E	<28.9	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Chrysene	EPA 8270E	<15.9	U	µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	EPA 8270E	<81.1	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Dibenz(a,h) anthracene	EPA 8270E	<10.6	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Dibenzofuran	EPA 8270E	<14.4	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Diethyl phthalate	EPA 8270E	<33.4	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Dimethyl phthalate	EPA 8270E	<19.1	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Fluoranthene	EPA 8270E	35.3		µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
Fluorene	EPA 8270E	<14.2	U	µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
Hexachlorobenzene	EPA 8270E	<28.5	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Hexachlorobutadiene	EPA 8270E	<23.1	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Hexachlorocyclopentadiene	EPA 8270E	<92.9	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Hexachloroethane	EPA 8270E	<40.6	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Indeno(1,2,3-cd) pyrene	EPA 8270E	33.3		µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
Isophorone	EPA 8270E	<19.1	U	µg/kg	490	1	01/21/26 18:59	01/20/26 13:29
Methylphenol, Total	EPA 8270E	<26.5	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 13:51
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB02 (3-4')_2026 0116

Lab ID: HN2600829-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Naphthalene	EPA 8270E	<12.5	U	µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
Nitrobenzene	EPA 8270E	<32.9	U	µg/kg	490	1	01/21/26 18:59	01/20/26 13:29
n-Nitrosodi-n-propylamine	EPA 8270E	<16.2	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
N-Nitrosodiphenylamine	EPA 8270E	<56.8	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Pentachlorophenol	EPA 8270E	<77.9	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Phenanthrene	EPA 8270E	<9.12	U	µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
Phenol	EPA 8270E	<49.2	U	µg/kg	97.1	1	01/21/26 18:59	01/20/26 13:29
Pyrene	EPA 8270E	31.4		µg/kg	19.6	1	01/21/26 18:59	01/20/26 13:29
Pyridine	EPA 8270E	<193	U	µg/kg	490	1	01/21/26 18:59	01/20/26 13:29
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	76.3		%REC	48-94	1	01/21/26 18:59	01/20/26 13:29
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	76.7		%REC	50-103	1	01/21/26 18:59	01/20/26 13:29
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	79.0		%REC	43-105	1	01/21/26 18:59	01/20/26 13:29
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	80.4		%REC	55-111	1	01/21/26 18:59	01/20/26 13:29
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	90.9		%REC	47-100	1	01/21/26 18:59	01/20/26 13:29
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	77.2		%REC	49-110	1	01/21/26 18:59	01/20/26 13:29

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	<23.5	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
1,1,2,2-Tetrachloroethane	EPA 8260D	<22.9	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	<32.8	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
1,1,2-Trichloroethane	EPA 8260D	<22.0	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
1,1-Dichloroethane	EPA 8260D	<18.9	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
1,1-Dichloroethylene	EPA 8260D	<16.8	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
1,2,3-Trichlorobenzene	EPA 8260D	<62.2	U	µg/kg	173	1	01/20/26 16:57	01/19/26 12:25
1,2,3-Trichloropropane	EPA 8260D	<21.7	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
1,2,4-Trichlorobenzene	EPA 8260D	<58.7	U	µg/kg	173	1	01/20/26 16:57	01/19/26 12:25
1,2,4-Trimethylbenzene	EPA 8260D	<38.0	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	<47.7	U	µg/kg	173	1	01/20/26 16:57	01/19/26 12:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	<30.5	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	<19.7	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 13:51
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB02 (3-4')_2026 0116

Lab ID: HN2600829-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	<30.5	U	µg/kg	173	1	01/20/26 16:57	01/19/26 12:25
1,2-Dichloropropane	EPA 8260D	<38.2	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
1,3,5-Trimethylbenzene	EPA 8260D	<36.6	U	µg/kg	173	1	01/20/26 16:57	01/19/26 12:25
1,3-Dichlorobenzene (m- Dichlorobenzene)	EPA 8260D	<35.8	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
1,3-Dichloropropene	EPA 8260D	<28.9	U	µg/kg	104	1	01/20/26 16:57	01/19/26 12:25
1,4-Dichlorobenzene (p- Dichlorobenzene)	EPA 8260D	<42.1	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	<123	U	µg/kg	345	1	01/20/26 16:57	01/19/26 12:25
2-Hexanone	EPA 8260D	<25.7	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	<48.3	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Acetone	EPA 8260D	<154	U	µg/kg	173	1	01/20/26 16:57	01/19/26 12:25
Benzene	EPA 8260D	<25.1	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Bromochloromethane	EPA 8260D	<26.4	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Bromodichloromethane	EPA 8260D	<29.0	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Bromoform	EPA 8260D	<21.8	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Carbon disulfide	EPA 8260D	<26.8	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Carbon tetrachloride	EPA 8260D	<20.3	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Chlorobenzene	EPA 8260D	<17.2	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Chlorodibromomethane	EPA 8260D	<29.1	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Chloroethane (Ethyl chloride)	EPA 8260D	<145	U	µg/kg	173	1	01/20/26 16:57	01/19/26 12:25
Chloroform	EPA 8260D	<19.0	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
cis-1,2-Dichloroethylene	EPA 8260D	<33.3	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
cis-1,3-Dichloropropene	EPA 8260D	<39.0	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Cyclohexane	EPA 8260D	<39.7	U	µg/kg	173	1	01/20/26 16:57	01/19/26 12:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	<62.7	U	µg/kg	173	1	01/20/26 16:57	01/19/26 12:25
Ethylbenzene	EPA 8260D	<36.8	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Isopropylbenzene	EPA 8260D	<32.7	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
m+p-Xylene	EPA 8260D	<69.1	U	µg/kg	104	1	01/20/26 16:57	01/19/26 12:25
Methyl acetate	EPA 8260D	<62.0	U	µg/kg	432	1	01/20/26 16:57	01/19/26 12:25
Methyl bromide (Bromomethane)	EPA 8260D	<99.1	U	µg/kg	173	1	01/20/26 16:57	01/19/26 12:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 13:51
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB02 (3-4')_2026 0116

Lab ID: HN2600829-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methyl chloride (Chloromethane)	EPA 8260D	<142	U	µg/kg	173	1	01/20/26 16:57	01/19/26 12:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	<37.8	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Methylcyclohexane	EPA 8260D	<19.8	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Methylene chloride (Dichloromethane)	EPA 8260D	<138	U	µg/kg	432	1	01/20/26 16:57	01/19/26 12:25
o-Xylene	EPA 8260D	<20.0	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Styrene	EPA 8260D	<20.5	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	<31.2	SU	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Toluene	EPA 8260D	<42.7	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Total Xylene	EPA 8260D	<20.0	U	µg/kg	155	1	01/20/26 16:57	01/19/26 12:25
trans-1,2-Dichloroethylene	EPA 8260D	<42.8	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
trans-1,3-Dichloropropylene	EPA 8260D	<28.9	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Trichloroethene (Trichloroethylene)	EPA 8260D	<23.2	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	<26.5	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
Vinyl chloride (Chloroethene)	EPA 8260D	<34.4	U	µg/kg	51.8	1	01/20/26 16:57	01/19/26 12:25
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	101		%REC	<i>80-120</i>	<i>1</i>	<i>01/20/26 16:57</i>	<i>01/19/26 12:25</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	101		%REC	<i>80-120</i>	<i>1</i>	<i>01/20/26 16:57</i>	<i>01/19/26 12:25</i>
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	96.4		%REC	<i>72-120</i>	<i>1</i>	<i>01/20/26 16:57</i>	<i>01/19/26 12:25</i>
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	99.3		%REC	<i>80-120</i>	<i>1</i>	<i>01/20/26 16:57</i>	<i>01/19/26 12:25</i>

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 14:00
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB03 (5-6')_2026 0116

Lab ID: HN2600829-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorinated Herbicides by GC/ECD								
2,4,5-T	EPA 8151A	<2.01	U	µg/kg	10.9	1	01/21/26 20:18	01/19/26 08:37
2,4,5-TP (Silvex)	EPA 8151A	<3.59	U	µg/kg	10.9	1	01/21/26 20:18	01/19/26 08:37
2,4-D	EPA 8151A	<5.85	U	µg/kg	21.9	1	01/21/26 20:18	01/19/26 08:37
Surr: DCAA	EPA 8151A	72.0		%REC	10-116	1	01/21/26 20:18	01/19/26 08:37
General Chemistry Parameters								
Percent Moisture	EPA 3550C	11.7		%	0.1	1	01/20/26 13:16	NA
Chloride	EPA 9056A	13.6		mg/kg	12.3	1	01/20/26 07:21	01/19/26 14:38
Metals								
Arsenic	EPA 6020B	7.13		mg/kg	2.96	10	01/22/26 16:13	01/22/26 09:18
Barium	EPA 6020B	32.7		mg/kg	2.96	10	01/22/26 16:13	01/22/26 09:18
Cadmium	EPA 6020B	<0.177	U	mg/kg	1.18	10	01/22/26 16:13	01/22/26 09:18
Chromium	EPA 6020B	13.0		mg/kg	2.96	10	01/22/26 16:13	01/22/26 09:18
Copper	EPA 6020B	11.2		mg/kg	2.96	10	01/22/26 16:13	01/22/26 09:18
Lead	EPA 6020B	7.34		mg/kg	2.96	10	01/22/26 16:13	01/22/26 09:18
Selenium	EPA 6020B	<2.72	U	mg/kg	2.96	10	01/22/26 16:13	01/22/26 09:18
Silver	EPA 6020B	<0.390	U	mg/kg	2.96	10	01/22/26 16:13	01/22/26 09:18
Zinc	EPA 6020B	40.5		mg/kg	5.91	10	01/22/26 16:13	01/22/26 09:18
Mercury	EPA 7471B	0.0399		mg/kg	0.0200	1	01/23/26 13:10	01/22/26 14:13
Organochlorine Pesticides by GC/ECD								
4,4'-DDD	EPA 8081B	<16.9	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
4,4'-DDE	EPA 8081B	<17.4	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
4,4'-DDT	EPA 8081B	<17.5	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
Aldrin	EPA 8081B	<17.1	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
alpha-BHC	EPA 8081B	<17.4	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
beta-BHC	EPA 8081B	<17.3	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
Chlordane, Technical	EPA 8081B	<26.1	U	µg/kg	65.9	1	01/20/26 21:12	01/19/26 08:04
cis-Chlordane	EPA 8081B	<17.6	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
delta-BHC	EPA 8081B	<17.3	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
Dieldrin	EPA 8081B	<18.4	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 14:00
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB03 (5-6')_2026 0116

Lab ID: HN2600829-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Endosulfan I	EPA 8081B	<17.7	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
Endosulfan II	EPA 8081B	<17.5	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
Endosulfan sulfate	EPA 8081B	<16.2	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
Endrin	EPA 8081B	<21.3	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
Endrin aldehyde	EPA 8081B	<16.7	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
Endrin ketone	EPA 8081B	<16.0	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
gamma-BHC (Lindane)	EPA 8081B	<17.3	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
Heptachlor	EPA 8081B	<17.0	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
Heptachlor epoxide	EPA 8081B	<17.4	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
Methoxychlor	EPA 8081B	<17.6	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
Toxaphene	EPA 8081B	<28.5	U	µg/kg	158	1	01/20/26 21:12	01/19/26 08:04
trans-Chlordane	EPA 8081B	<17.5	U	µg/kg	26.4	1	01/20/26 21:12	01/19/26 08:04
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	121		%REC	53-151	1	01/20/26 21:12	01/19/26 08:04
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	78.9		%REC	67-127	1	01/20/26 21:12	01/19/26 08:04

Polychlorinated Biphenyls (PCBs) by GC/ECD

Aroclor 1016	EPA 8082A	<60.3	U	µg/kg	176	1	01/20/26 06:37	01/19/26 07:47
Aroclor 1221	EPA 8082A	<60.3	U	µg/kg	176	1	01/20/26 06:37	01/19/26 07:47
Aroclor 1232	EPA 8082A	<60.3	U	µg/kg	176	1	01/20/26 06:37	01/19/26 07:47
Aroclor 1242	EPA 8082A	<60.3	U	µg/kg	176	1	01/20/26 06:37	01/19/26 07:47
Aroclor 1248	EPA 8082A	<60.3	U	µg/kg	176	1	01/20/26 06:37	01/19/26 07:47
Aroclor 1254	EPA 8082A	<49.1	U	µg/kg	176	1	01/20/26 06:37	01/19/26 07:47
Aroclor 1260	EPA 8082A	<49.1	U	µg/kg	176	1	01/20/26 06:37	01/19/26 07:47
Aroclor 1262	EPA 8082A	<49.1	U	µg/kg	176	1	01/20/26 06:37	01/19/26 07:47
Aroclor 1268	EPA 8082A	<49.1	U	µg/kg	176	1	01/20/26 06:37	01/19/26 07:47
Total PCB	EPA 8082A	<49.1	U	µg/kg	176	1	01/20/26 06:37	01/19/26 07:47
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	122		%REC	54-146	1	01/20/26 06:37	01/19/26 07:47
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	101		%REC	58-140	1	01/20/26 06:37	01/19/26 07:47

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	<15.3	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
1,2,4,5-Tetrachlorobenzene	EPA 8270E	<21.7	U	µg/kg	939	1	01/21/26 19:20	01/20/26 13:29

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 14:00
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB03 (5-6')_2026 0116

Lab ID: HN2600829-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	<67.4	U	µg/kg	470	1	01/21/26 19:20	01/20/26 13:29
1-Methylnaphthalene	EPA 8270E	<13.5	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	EPA 8270E	<22.0	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
2,3,4,6-Tetrachlorophenol	EPA 8270E	<68.9	U	µg/kg	188	1	01/21/26 19:20	01/20/26 13:29
2,4,5-Trichlorophenol	EPA 8270E	<55.7	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
2,4,6-Trichlorophenol	EPA 8270E	<25.0	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
2,4-Dichlorophenol	EPA 8270E	<50.6	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
2,4-Dimethylphenol	EPA 8270E	<48.4	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
2,4-Dinitrophenol	EPA 8270E	<687	U	µg/kg	939	1	01/21/26 19:20	01/20/26 13:29
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	<61.1	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	<24.0	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
2-Chloronaphthalene	EPA 8270E	<13.1	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
2-Chlorophenol	EPA 8270E	<61.5	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	<78.5	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
2-Methylnaphthalene	EPA 8270E	<9.56	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
2-Methylphenol (o-Cresol)	EPA 8270E	<25.4	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
2-Nitroaniline	EPA 8270E	<52.2	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
2-Nitrophenol	EPA 8270E	<26.8	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
3&4-Methylphenol	EPA 8270E	<51.3	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
3,3'-Dichlorobenzidine	EPA 8270E	<43.9	U	µg/kg	470	1	01/21/26 19:20	01/20/26 13:29
3-Nitroaniline	EPA 8270E	<54.6	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	<51.5	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
4-Chloro-3-methylphenol	EPA 8270E	<26.8	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
4-Chloroaniline	EPA 8270E	<47.8	U	µg/kg	188	1	01/21/26 19:20	01/20/26 13:29
4-Chlorophenyl phenylether	EPA 8270E	<26.0	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
4-Nitroaniline	EPA 8270E	<146	U	µg/kg	470	1	01/21/26 19:20	01/20/26 13:29
4-Nitrophenol	EPA 8270E	<220	U	µg/kg	939	1	01/21/26 19:20	01/20/26 13:29
Acenaphthene	EPA 8270E	<13.6	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 14:00
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB03 (5-6')_2026 0116

Lab ID: HN2600829-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Acenaphthylene	EPA 8270E	<16.3	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
Acetophenone	EPA 8270E	<14.7	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Anthracene	EPA 8270E	<13.3	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
Atrazine	EPA 8270E	<55.1	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Benzaldehyde	EPA 8270E	<144	U	µg/kg	188	1	01/21/26 19:20	01/20/26 13:29
Benzo(a)anthracene	EPA 8270E	<16.2	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
Benzo(a)pyrene	EPA 8270E	<11.5	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
Benzo(b)fluoranthene	EPA 8270E	<14.0	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
Benzo(g,h,i)perylene	EPA 8270E	<14.4	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
Benzo(k)fluoranthene	EPA 8270E	<14.2	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
bis(2-Chloroethoxy) methane	EPA 8270E	<59.5	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
bis(2-Chloroethyl) ether	EPA 8270E	<26.6	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Butyl benzyl phthalate	EPA 8270E	<118	U	µg/kg	188	1	01/21/26 19:20	01/20/26 13:29
Caprolactam	EPA 8270E	<84.9	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Carbazole	EPA 8270E	<27.7	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Chrysene	EPA 8270E	<15.2	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	EPA 8270E	<77.8	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Dibenz(a,h) anthracene	EPA 8270E	<10.2	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Dibenzofuran	EPA 8270E	<13.8	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Diethyl phthalate	EPA 8270E	<32.0	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Dimethyl phthalate	EPA 8270E	<18.3	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Fluoranthene	EPA 8270E	<9.03	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
Fluorene	EPA 8270E	<13.7	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
Hexachlorobenzene	EPA 8270E	<27.4	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Hexachlorobutadiene	EPA 8270E	<22.1	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Hexachlorocyclopentadiene	EPA 8270E	<89.1	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Hexachloroethane	EPA 8270E	<38.9	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Indeno(1,2,3-cd) pyrene	EPA 8270E	<13.1	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
Isophorone	EPA 8270E	<18.4	U	µg/kg	470	1	01/21/26 19:20	01/20/26 13:29
Methylphenol, Total	EPA 8270E	<25.4	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 14:00
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB03 (5-6')_2026 0116

Lab ID: HN2600829-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Naphthalene	EPA 8270E	<12.0	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
Nitrobenzene	EPA 8270E	<31.6	U	µg/kg	470	1	01/21/26 19:20	01/20/26 13:29
n-Nitrosodi-n-propylamine	EPA 8270E	<15.5	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
N-Nitrosodiphenylamine	EPA 8270E	<54.4	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Pentachlorophenol	EPA 8270E	<74.7	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Phenanthrene	EPA 8270E	<8.74	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
Phenol	EPA 8270E	<47.2	U	µg/kg	93.1	1	01/21/26 19:20	01/20/26 13:29
Pyrene	EPA 8270E	<9.38	U	µg/kg	18.8	1	01/21/26 19:20	01/20/26 13:29
Pyridine	EPA 8270E	<185	U	µg/kg	470	1	01/21/26 19:20	01/20/26 13:29
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	76.6		%REC	48-94	1	01/21/26 19:20	01/20/26 13:29
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	77.9		%REC	50-103	1	01/21/26 19:20	01/20/26 13:29
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	82.3		%REC	43-105	1	01/21/26 19:20	01/20/26 13:29
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	84.0		%REC	55-111	1	01/21/26 19:20	01/20/26 13:29
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	93.0		%REC	47-100	1	01/21/26 19:20	01/20/26 13:29
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	81.6		%REC	49-110	1	01/21/26 19:20	01/20/26 13:29

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	<16.7	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
1,1,2,2-Tetrachloroethane	EPA 8260D	<16.2	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	<23.3	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
1,1,2-Trichloroethane	EPA 8260D	<15.6	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
1,1-Dichloroethane	EPA 8260D	<13.4	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
1,1-Dichloroethylene	EPA 8260D	<11.9	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
1,2,3-Trichlorobenzene	EPA 8260D	<44.1	U	µg/kg	122	1	01/20/26 17:17	01/19/26 12:25
1,2,3-Trichloropropane	EPA 8260D	<15.4	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
1,2,4-Trichlorobenzene	EPA 8260D	<41.6	U	µg/kg	122	1	01/20/26 17:17	01/19/26 12:25
1,2,4-Trimethylbenzene	EPA 8260D	<26.9	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	<33.8	U	µg/kg	122	1	01/20/26 17:17	01/19/26 12:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	<21.6	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	<13.9	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 14:00
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB03 (5-6')_2026 0116

Lab ID: HN2600829-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	<21.6	U	µg/kg	122	1	01/20/26 17:17	01/19/26 12:25
1,2-Dichloropropane	EPA 8260D	<27.1	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
1,3,5-Trimethylbenzene	EPA 8260D	<25.9	U	µg/kg	122	1	01/20/26 17:17	01/19/26 12:25
1,3-Dichlorobenzene (m- Dichlorobenzene)	EPA 8260D	<25.4	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
1,3-Dichloropropene	EPA 8260D	<20.5	U	µg/kg	73.4	1	01/20/26 17:17	01/19/26 12:25
1,4-Dichlorobenzene (p- Dichlorobenzene)	EPA 8260D	<29.8	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	<87.4	U	µg/kg	245	1	01/20/26 17:17	01/19/26 12:25
2-Hexanone	EPA 8260D	<18.2	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	<34.2	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Acetone	EPA 8260D	<109	U	µg/kg	122	1	01/20/26 17:17	01/19/26 12:25
Benzene	EPA 8260D	<17.8	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Bromochloromethane	EPA 8260D	<18.7	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Bromodichloromethane	EPA 8260D	<20.6	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Bromoform	EPA 8260D	<15.5	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Carbon disulfide	EPA 8260D	<19.0	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Carbon tetrachloride	EPA 8260D	<14.4	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Chlorobenzene	EPA 8260D	<12.2	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Chlorodibromomethane	EPA 8260D	<20.6	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Chloroethane (Ethyl chloride)	EPA 8260D	<103	U	µg/kg	122	1	01/20/26 17:17	01/19/26 12:25
Chloroform	EPA 8260D	<13.5	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
cis-1,2-Dichloroethylene	EPA 8260D	<23.6	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
cis-1,3-Dichloropropene	EPA 8260D	<27.7	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Cyclohexane	EPA 8260D	<28.1	U	µg/kg	122	1	01/20/26 17:17	01/19/26 12:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	<44.4	U	µg/kg	122	1	01/20/26 17:17	01/19/26 12:25
Ethylbenzene	EPA 8260D	<26.0	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Isopropylbenzene	EPA 8260D	<23.2	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
m+p-Xylene	EPA 8260D	<49.0	U	µg/kg	73.4	1	01/20/26 17:17	01/19/26 12:25
Methyl acetate	EPA 8260D	<44.0	U	µg/kg	306	1	01/20/26 17:17	01/19/26 12:25
Methyl bromide (Bromomethane)	EPA 8260D	<70.2	U	µg/kg	122	1	01/20/26 17:17	01/19/26 12:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID

Work Order: HN2600829
Date Collected: 01/16/26 14:00
Date Received: 01/17/26 08:00

CLIENT ID: 17174 SB03 (5-6')_2026 0116

Lab ID: HN2600829-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methyl chloride (Chloromethane)	EPA 8260D	<100	U	µg/kg	122	1	01/20/26 17:17	01/19/26 12:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	<26.8	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Methylcyclohexane	EPA 8260D	<14.0	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Methylene chloride (Dichloromethane)	EPA 8260D	<97.4	U	µg/kg	306	1	01/20/26 17:17	01/19/26 12:25
o-Xylene	EPA 8260D	<14.2	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Styrene	EPA 8260D	<14.6	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	<22.1	SU	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Toluene	EPA 8260D	<30.3	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Total Xylene	EPA 8260D	<14.2	U	µg/kg	110	1	01/20/26 17:17	01/19/26 12:25
trans-1,2-Dichloroethylene	EPA 8260D	<30.3	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
trans-1,3-Dichloropropylene	EPA 8260D	<20.5	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Trichloroethene (Trichloroethylene)	EPA 8260D	<16.5	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	<18.8	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
Vinyl chloride (Chloroethene)	EPA 8260D	<24.4	U	µg/kg	36.7	1	01/20/26 17:17	01/19/26 12:25
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	101		%REC	80-120	1	01/20/26 17:17	01/19/26 12:25
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	105		%REC	80-120	1	01/20/26 17:17	01/19/26 12:25
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	95.8		%REC	72-120	1	01/20/26 17:17	01/19/26 12:25
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	95.4		%REC	80-120	1	01/20/26 17:17	01/19/26 12:25



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2421623

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3836904

Chlorinated Herbicides by GC/ECD

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2421623-002
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 01/21/26 16:14
Prep Date: 01/19/26 08:38

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	33.0	µg/kg	5.00	50		66.0	10-119			
2,4,5-TP (Silvex)	30.0	µg/kg	5.00	50		60.0	10-101			
2,4-D	32.0	µg/kg	10.0	50		64.0	10-128			
Surr: DCAA	33.0	µg/kg		50		66.0	10-116			

MB	CLIENT ID: Method Blank	Lab ID: QC-MRG2-2421622001
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 01/21/26 15:59
Prep Date: 01/19/26 08:38

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	<0.920	µg/kg	5.00							U
2,4,5-TP (Silvex)	<1.64	µg/kg	5.00							U
2,4-D	<2.67	µg/kg	10.0							U
Surr: DCAA	25.0	µg/kg		50		50.0	10-116			

MS	CLIENT ID: Batch QC	Lab ID: QC-MRG2-2421623005
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 01/21/26 16:30
Prep Date: 01/19/26 08:38

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	55.3	µg/kg	11.3	95.329	<1.75	58.0	10-119			
2,4,5-TP (Silvex)	45.8	µg/kg	11.3	95.329	<3.13	48.0	10-101			
2,4-D	57.2	µg/kg	22.5	95.329	<5.09	60.0	10-128			
Surr: DCAA	45.8	µg/kg		95.329		48.0	10-116			

MSD	CLIENT ID: Batch QC	Lab ID: QC-MRG2-2421623006
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 01/21/26 16:45
Prep Date: 01/19/26 08:38

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	47.8	µg/kg	11.3	95.511	<1.76	50.0	10-119	14.6	30	
2,4,5-TP (Silvex)	40.1	µg/kg	11.3	95.511	<3.13	42.0	10-101	13.1	30	
2,4-D	51.6	µg/kg	22.6	95.511	<5.10	54.0	10-128	10.3	30	
Surr: DCAA	43.9	µg/kg		95.511		46.0	10-116	4.06	30	

The following samples were analyzed in this batch: HN2600829-001, HN2600829-002, HN2600829-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422190

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3829590

General Chemistry Parameters

MB	CLIENT ID: Method Blank	Lab ID: QC-2422190-001
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 01/20/26 05:03
Prep Date: 01/19/26 14:39

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	<3.10	mg/kg	10.0							U

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2422190-002
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 01/20/26 05:12
Prep Date: 01/19/26 14:39

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	96.1	mg/kg	10.0	100		96.1	87-110			

MS	CLIENT ID: Batch QC	Lab ID: QC-2422190-004
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 01/20/26 05:28
Prep Date: 01/19/26 14:39

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	105	mg/kg	11.8	103.44	10.4	92.6	87-110			

MSD	CLIENT ID: Batch QC	Lab ID: QC-2422190-005
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 01/20/26 05:36
Prep Date: 01/19/26 14:39

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	105	mg/kg	11.6	101.86	10.4	94.1	87-110	0.0601	15	

The following samples were analyzed in this batch: HN2600829-001, HN2600829-002, HN2600829-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422981

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3830350

General Chemistry Parameters

MB	CLIENT ID: Method Blank	Lab ID: QC-2422981-001
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 01/20/26 13:16
Prep Date: NA

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	<0.1	%	0.1							U

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2422981-002
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 01/20/26 13:16
Prep Date: NA

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	100	%	0.1	100		100.0	98-102			

DUP	CLIENT ID: Batch QC	Lab ID: QC-2422981-004
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 01/20/26 13:16
Prep Date: NA

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	3.5	%	0.1		3.6			1.70	10	

DUP	CLIENT ID: Batch QC	Lab ID: QC-2422981-015
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 01/20/26 13:16
Prep Date: NA

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	15.7	%	0.1		16.0			1.71	10	

The following samples were analyzed in this batch: HN2600829-001, HN2600829-002, HN2600829-003



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2426110

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3836789

Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2426110-001
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 01/22/26 15:26
Prep Date: 01/22/26 09:19

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	<0.0300	mg/kg	0.250							U
Barium	<0.230	mg/kg	0.250							U
Cadmium	<0.0150	mg/kg	0.100							U
Chromium	<0.110	mg/kg	0.250							U
Copper	<0.250	mg/kg	0.250							U
Lead	<0.120	mg/kg	0.250							U
Selenium	<0.230	mg/kg	0.250							U
Silver	<0.0330	mg/kg	0.250							U
Zinc	<0.490	mg/kg	0.500							U

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2426110-002
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 01/22/26 15:28
Prep Date: 01/22/26 09:19

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	4.76	mg/kg	0.250	5		95.2	80-120			
Barium	5.11	mg/kg	0.250	5		102	80-120			
Cadmium	4.85	mg/kg	0.100	5		97.1	80-120			
Chromium	4.79	mg/kg	0.250	5		95.7	80-120			
Copper	4.76	mg/kg	0.250	5		95.2	80-120			
Lead	5.00	mg/kg	0.250	5		100	80-120			
Selenium	4.77	mg/kg	0.250	5		95.5	80-120			
Silver	4.93	mg/kg	0.250	5		98.5	80-120			
Zinc	4.65	mg/kg	0.500	5		93.1	80-120			

MS	CLIENT ID: 17174 SB01 (1-2')_2026 0116	Lab ID: QC-2426110-004
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 01/22/26 16:00
Prep Date: 01/22/26 09:19

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	9.82	mg/kg	3.51	5.9453	6.40	74.1	75-125			S
Barium	66.6	mg/kg	3.51	5	106	NC	75-125			O
Cadmium	5.61	mg/kg	1.40	5.9453	<0.178	91.4	75-125			
Chromium	18.0	mg/kg	3.51	5.9453	18.6	38.8	75-125			S
Copper	15.2	mg/kg	3.51	5.9453	16.0	27.5	75-125			S
Lead	31.5	mg/kg	3.51	5	40.9	NC	75-125			O
Selenium	5.59	mg/kg	3.51	5.9453	<2.73	94.2	75-125			
Silver	4.98	mg/kg	3.51	5.9453	<0.392	83.1	75-125			
Zinc	52.9	mg/kg	7.02	5	73.2	NC	75-125			O

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2426110

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3836789

MSD	CLIENT ID: 17174 SB01 (1-2')_2026 0116	Lab ID: QC-2426110-005
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 01/22/26 16:02
Prep Date: 01/22/26 09:19

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	9.07	mg/kg	3.42	5.8005	6.40	62.9	75-125	7.98	20	S
Barium	60.1	mg/kg	3.42	5	106	NC	75-125	10.3	20	O
Cadmium	5.37	mg/kg	1.37	5.8005	<0.174	89.4	75-125	4.43	20	
Chromium	19.0	mg/kg	3.42	5.8005	18.6	55.7	75-125	5.00	20	S
Copper	15.5	mg/kg	3.42	5.8005	16.0	32.9	75-125	1.80	20	S
Lead	23.7	mg/kg	3.42	5	40.9	NC	75-125	28.2	20	OR
Selenium	4.85	mg/kg	3.42	5.8005	<2.67	83.8	75-125	14.3	20	
Silver	4.86	mg/kg	3.42	5.8005	<0.383	83.1	75-125	2.47	20	
Zinc	47.3	mg/kg	6.85	5	73.2	NC	75-125	11.1	20	O

PDS	CLIENT ID: 17174 SB01 (1-2')_2026 0116	Lab ID: QC-2426110-007
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 01/22/26 16:08
Prep Date: 01/22/26 09:19

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	60.3	mg/kg	3.56	60.241	6.40	91.0	75-125			
Barium	146	mg/kg	3.56	60.241	106	93.7	75-125			
Cadmium	54.4	mg/kg	1.42	60.241	<0.181	90.0	75-125			
Chromium	68.2	mg/kg	3.56	60.241	18.6	87.0	75-125			
Copper	65.1	mg/kg	3.56	60.241	16.0	85.5	75-125			
Lead	90.7	mg/kg	3.56	60.241	40.9	93.1	75-125			
Selenium	53.8	mg/kg	3.56	60.241	<2.77	89.3	75-125			
Silver	45.7	mg/kg	3.56	60.241	<0.398	75.8	75-125			
Zinc	113	mg/kg	7.11	60.241	73.2	84.3	75-125			

The following samples were analyzed in this batch: HN2600829-001, HN2600829-002, HN2600829-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2426368

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3838239

Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2426368-001
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 01/23/26 11:52
Prep Date: 01/22/26 14:00

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	<0.0136	mg/kg	0.0200							U

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2426368-002
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 01/23/26 11:54
Prep Date: 01/22/26 14:00

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.170	mg/kg	0.0200	0.1665		102	80-120			

MS	CLIENT ID: Batch QC	Lab ID: QC-2426368-004
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 01/23/26 12:08
Prep Date: 01/22/26 14:00

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.151	mg/kg	0.0258	0.1491	0.0383	83.8	75-125			

MSD	CLIENT ID: Batch QC	Lab ID: QC-2426368-005
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 01/23/26 12:10
Prep Date: 01/22/26 14:00

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.142	mg/kg	0.0244	0.1411	0.0383	81.8	75-125	6.50	35	

MS	CLIENT ID: Batch QC	Lab ID: QC-2426368-007
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 01/23/26 12:13
Prep Date: 01/22/26 14:00

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.142	mg/kg	0.0233	0.15464	0.0309	75.7	75-125			

MSD	CLIENT ID: Batch QC	Lab ID: QC-2426368-008
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 01/23/26 12:15
Prep Date: 01/22/26 14:00

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.158	mg/kg	0.0238	0.15806	0.0309	84.5	75-125	11.1	35	

The following samples were analyzed in this batch: HN2600829-001, HN2600829-002, HN2600829-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2426662

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3838239

Metals

MB	CLIENT ID: Method Blank						Lab ID: QC-2426662-001				
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 01/23/26 13:47
Prep Date: 01/22/26 14:14

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	<0.0136	mg/kg	0.0200							U

LCS	CLIENT ID: Laboratory Control Sample						Lab ID: QC-2426662-002				
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 01/23/26 12:47
Prep Date: 01/22/26 14:14

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.194	mg/kg	0.0200	0.1665		117	80-120			

MS	CLIENT ID: Batch QC						Lab ID: QC-2426662-004				
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 01/23/26 12:56
Prep Date: 01/22/26 14:14

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.254	mg/kg	0.0230	0.15136	0.110	110	75-125			

MSD	CLIENT ID: Batch QC						Lab ID: QC-2426662-005				
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 01/23/26 12:59
Prep Date: 01/22/26 14:14

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.222	mg/kg	0.0224	0.14712	0.110	92.0	75-125	13.2	35	

MS	CLIENT ID: Batch QC						Lab ID: QC-2426662-007				
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 01/23/26 13:04
Prep Date: 01/22/26 14:14

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.250	mg/kg	0.0224	0.14374	0.0980	122	75-125			

MSD	CLIENT ID: Batch QC						Lab ID: QC-2426662-008				
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 01/23/26 13:07
Prep Date: 01/22/26 14:14

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.274	mg/kg	0.0217	0.13952	0.0980	142	75-125	9.18	35	S

The following samples were analyzed in this batch: HN2600829-001, HN2600829-002, HN2600829-003



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2421584

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3833270

Organochlorine Pesticides by GC/ECD

MB	CLIENT ID: Method Blank	Lab ID: QC-2421584-001
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Method: EPA 8081B**Dilution:** 1**Analysis Date:** 01/20/26 05:01**Prep Date:** 01/19/26 08:05

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	<6.39	µg/kg	10.0							U
4,4'-DDE	<6.59	µg/kg	10.0							U
4,4'-DDT	<6.65	µg/kg	10.0							U
Aldrin	<6.50	µg/kg	10.0							U
alpha-BHC	<6.58	µg/kg	10.0							U
beta-BHC	<6.57	µg/kg	10.0							U
Chlordane, Technical	<9.92	µg/kg	25.0							U
cis-Chlordane	<6.68	µg/kg	10.0							U
delta-BHC	<6.55	µg/kg	10.0							U
Dieldrin	<6.99	µg/kg	10.0							U
Endosulfan I	<6.72	µg/kg	10.0							U
Endosulfan II	<6.62	µg/kg	10.0							U
Endosulfan sulfate	<6.15	µg/kg	10.0							U
Endrin	<8.09	µg/kg	10.0							U
Endrin aldehyde	<6.34	µg/kg	10.0							U
Endrin ketone	<6.08	µg/kg	10.0							U
gamma-BHC (Lindane)	<6.56	µg/kg	10.0							U
Heptachlor	<6.45	µg/kg	10.0							U
Heptachlor epoxide	<6.62	µg/kg	10.0							U
Methoxychlor	<6.69	µg/kg	10.0							U
Toxaphene	<10.8	µg/kg	60.0							U
trans-Chlordane	<6.64	µg/kg	10.0							U
Surr: Decachlorobiphenyl	45.6	µg/kg		33.33		137	53-151			
Surr: Tetrachloro-m-xylene	34.4	µg/kg		33.33		103	67-127			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2421584-002
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Method: EPA 8081B**Dilution:** 1**Analysis Date:** 01/20/26 05:16**Prep Date:** 01/19/26 08:05

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	31.0	µg/kg	10.0	33.33		92.9	55-141			
4,4'-DDE	30.6	µg/kg	10.0	33.33		92.0	55-143			
4,4'-DDT	31.1	µg/kg	10.0	33.33		93.3	50-144			
Aldrin	33.0	µg/kg	10.0	33.33		99.0	57-141			
alpha-BHC	31.9	µg/kg	10.0	33.33		95.6	58-144			
beta-BHC	32.9	µg/kg	10.0	33.33		98.7	55-147			
cis-Chlordane	31.3	µg/kg	10.0	33.33		94.0	58-142			
delta-BHC	33.0	µg/kg	10.0	33.33		99.2	59-142			
Dieldrin	31.3	µg/kg	10.0	33.33		93.8	59-142			
Endosulfan I	28.1	µg/kg	10.0	33.33		84.3	57-145			
Endosulfan II	31.4	µg/kg	10.0	33.33		94.2	58-138			
Endosulfan sulfate	30.6	µg/kg	10.0	33.33		91.8	54-136			
Endrin	31.8	µg/kg	10.0	33.33		95.5	45-150			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2421584

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3833270

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2421584-002
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Method: EPA 8081B

Dilution: 1

Analysis Date: 01/20/26 05:16

Prep Date: 01/19/26 08:05

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Endrin aldehyde	35.7	µg/kg	10.0	33.33		107	41-147			
Endrin ketone	32.5	µg/kg	10.0	33.33		97.6	54-146			
gamma-BHC (Lindane)	32.4	µg/kg	10.0	33.33		97.2	58-145			
Heptachlor	39.0	µg/kg	10.0	33.33		117	51-145			
Heptachlor epoxide	31.9	µg/kg	10.0	33.33		95.8	59-143			
Methoxychlor	30.6	µg/kg	10.0	33.33		91.9	43-144			
trans-Chlordane	31.7	µg/kg	10.0	33.33		95.1	56-145			
Surr: Decachlorobiphenyl	37.5	µg/kg		33.33		113	51-151			
Surr: Tetrachloro-m-xylene	30.3	µg/kg		33.33		90.9	67-127			

MS	CLIENT ID: Batch QC	Lab ID: QC-2421584-005
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Method: EPA 8081B

Dilution: 1

Analysis Date: 01/20/26 07:59

Prep Date: 01/19/26 08:05

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	73.7	µg/kg	25.6	78.485	<15.0	94.0	55-141			
4,4'-DDE	74.0	µg/kg	25.6	78.485	<15.5	94.3	55-143			
4,4'-DDT	76.0	µg/kg	25.6	78.485	<15.7	96.8	50-144			
Aldrin	74.9	µg/kg	25.6	78.485	<15.3	95.4	57-141			
alpha-BHC	73.4	µg/kg	25.6	78.485	<15.5	93.6	58-144			
beta-BHC	75.4	µg/kg	25.6	78.485	<15.5	96.0	55-147			
cis-Chlordane	75.6	µg/kg	25.6	78.485	<15.7	96.4	58-142			
delta-BHC	75.9	µg/kg	25.6	78.485	<15.4	96.7	59-142			
Dieldrin	75.4	µg/kg	25.6	78.485	<16.5	96.1	59-142			
Endosulfan I	65.8	µg/kg	25.6	78.485	<15.8	83.8	57-145			
Endosulfan II	75.0	µg/kg	25.6	78.485	<15.6	95.6	58-138			
Endosulfan sulfate	73.0	µg/kg	25.6	78.485	<14.5	93.0	54-135			
Endrin	78.6	µg/kg	25.6	78.485	<19.1	100	45-150			
Endrin aldehyde	88.9	µg/kg	25.6	78.485	<14.9	113	41-147			
Endrin ketone	77.4	µg/kg	25.6	78.485	<14.3	98.6	54-146			
gamma-BHC (Lindane)	74.3	µg/kg	25.6	78.485	<15.5	94.7	58-145			
Heptachlor	90.2	µg/kg	25.6	78.485	<15.2	115	51-145			
Heptachlor epoxide	75.7	µg/kg	25.6	78.485	<15.6	96.5	59-143			
Methoxychlor	76.6	µg/kg	25.6	78.485	<15.7	97.6	43-144			
trans-Chlordane	75.3	µg/kg	25.6	78.485	<15.6	96.0	56-145			
Surr: Decachlorobiphenyl	88.3	µg/kg		78.485		113	53-151			
Surr: Tetrachloro-m-xylene	70.6	µg/kg		78.485		90.0	67-127			

MSD	CLIENT ID: Batch QC	Lab ID: QC-2421584-006
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Method: EPA 8081B

Dilution: 1

Analysis Date: 01/20/26 08:14

Prep Date: 01/19/26 08:05

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	69.9	µg/kg	25.3	77.512	<14.9	90.2	55-141	5.38	20	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2421584

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3833270

MSD	CLIENT ID: Batch QC	Lab ID: QC-2421584-006
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Method: EPA 8081B

Dilution: 1

Analysis Date: 01/20/26 08:14

Prep Date: 01/19/26 08:05

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDE	70.5	µg/kg	25.3	77.512	<15.3	91.0	55-143	4.81	20	
4,4'-DDT	72.8	µg/kg	25.3	77.512	<15.5	93.9	50-144	4.34	20	
Aldrin	72.3	µg/kg	25.3	77.512	<15.1	93.3	57-141	3.53	20	
alpha-BHC	69.1	µg/kg	25.3	77.512	<15.3	89.2	58-144	6.06	20	
beta-BHC	71.9	µg/kg	25.3	77.512	<15.3	92.7	55-147	4.75	20	
cis-Chlordane	71.8	µg/kg	25.3	77.512	<15.5	92.6	58-142	5.22	20	
delta-BHC	72.3	µg/kg	25.3	77.512	<15.2	93.3	59-142	4.83	20	
Dieldrin	71.2	µg/kg	25.3	77.512	<16.3	91.9	59-142	5.72	20	
Endosulfan I	63.3	µg/kg	25.3	77.512	<15.6	81.6	57-145	3.91	20	
Endosulfan II	70.9	µg/kg	25.3	77.512	<15.4	91.5	58-138	5.63	20	
Endosulfan sulfate	70.4	µg/kg	25.3	77.512	<14.3	90.8	54-135	3.64	20	
Endrin	74.4	µg/kg	25.3	77.512	<18.8	96.0	45-150	5.48	20	
Endrin aldehyde	82.9	µg/kg	25.3	77.512	<14.7	107	41-147	6.97	20	
Endrin ketone	74.1	µg/kg	25.3	77.512	<14.1	95.6	54-146	4.34	20	
gamma-BHC (Lindane)	70.5	µg/kg	25.3	77.512	<15.3	90.9	58-145	5.29	20	
Heptachlor	86.8	µg/kg	25.3	77.512	<15.0	112	51-145	3.85	20	
Heptachlor epoxide	71.6	µg/kg	25.3	77.512	<15.4	92.4	59-143	5.64	20	
Methoxychlor	75.1	µg/kg	25.3	77.512	<15.5	96.9	43-144	1.97	20	
trans-Chlordane	72.3	µg/kg	25.3	77.512	<15.4	93.3	56-145	4.10	20	
Surr: Decachlorobiphenyl	84.7	µg/kg		77.512		109	53-151	4.18	30	
Surr: Tetrachloro-m-xylene	66.4	µg/kg		77.512		85.7	67-127	6.20	30	

The following samples were analyzed in this batch: HN2600829-001, HN2600829-002, HN2600829-003



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2421581

Work Order: HN2600829
Date Collected: 01/16/26 13:43
Date Received: 01/17/26 08:00
Run ID: 3831072

Polychlorinated Biphenyls (PCBs) by GC/ECD

MS CLIENT ID: 17174 SB01 (1-2')_2026 0116 Lab ID: QC-2421581-005

Method: EPA 8082A **Dilution:** 1 **Analysis Date:** 01/20/26 05:27
Prep Date: 01/19/26 07:48

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	1890	µg/kg	187	1977.1	<54.3	95.5	71-135			
Aroclor 1260	1810	µg/kg	187	1977.1	<44.2	91.7	67-135			
Surr: Decachlorobiphenyl	90.8	µg/kg		79.035		115	54-146			
Surr: Tetrachloro-m-xylene	76.1	µg/kg		79.035		96.2	58-140			

MSD CLIENT ID: 17174 SB01 (1-2')_2026 0116 Lab ID: QC-2421581-006

Method: EPA 8082A **Dilution:** 1 **Analysis Date:** 01/20/26 05:38
Prep Date: 01/19/26 07:48

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	1980	µg/kg	185	1958.5	<53.7	101	71-135	4.86	20	
Aroclor 1260	1820	µg/kg	185	1958.5	<43.8	92.7	67-135	0.120	20	
Surr: Decachlorobiphenyl	90.7	µg/kg		78.292		116	54-146	0.120	30	
Surr: Tetrachloro-m-xylene	79.6	µg/kg		78.292		102	58-140	4.52	30	

The following samples were analyzed in this batch: HN2600829-001, HN2600829-002, HN2600829-003



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2421581

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3833598

Polychlorinated Biphenyls (PCBs) by GC/ECD

MB **CLIENT ID: Method Blank** **Lab ID: QC-2421581-001**

Method: EPA 8082A **Dilution:** 1 **Analysis Date:** 01/20/26 17:38
Prep Date: 01/19/26 07:48

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	<22.9	µg/kg	66.7							U
Aroclor 1221	<22.9	µg/kg	66.7							U
Aroclor 1232	<22.9	µg/kg	66.7							U
Aroclor 1242	<22.9	µg/kg	66.7							U
Aroclor 1248	<22.9	µg/kg	66.7							U
Aroclor 1254	<18.6	µg/kg	66.7							U
Aroclor 1260	<18.6	µg/kg	66.7							U
Aroclor 1262	<18.6	µg/kg	66.7							U
Aroclor 1268	<18.6	µg/kg	66.7							U
Total PCB	<18.6	µg/kg	66.7							U
Surr: Decachlorobiphenyl	54.1	µg/kg		33.3		163	54-146			S
Surr: Tetrachloro-m-xylene	37.8	µg/kg		33.3		114	58-140			

LCS **CLIENT ID: Laboratory Control Sample** **Lab ID: QC-2421581-002**

Method: EPA 8082A **Dilution:** 1 **Analysis Date:** 01/20/26 17:50
Prep Date: 01/19/26 07:48

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	814	µg/kg	66.7	833		97.7	71-135			
Aroclor 1260	857	µg/kg	66.7	833		103	67-135			
Surr: Decachlorobiphenyl	49.9	µg/kg		33.3		150	54-146			S
Surr: Tetrachloro-m-xylene	33.3	µg/kg		33.3		99.9	58-140			

The following samples were analyzed in this batch: HN2600829-001, HN2600829-002, HN2600829-003



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422965

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3835774

Semivolatile Organic Compounds by GC-MS

MB	CLIENT ID: Method Blank	Lab ID: QC-2422965-001
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Method: EPA 8270E

Dilution: 1

Analysis Date: 01/21/26 16:32

Prep Date: 01/20/26 13:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	<5.41	µg/kg	33.0							U
1,2,4,5-Tetrachlorobenzene	<7.69	µg/kg	333							U
1,4-Dioxane (1,4- Diethyleneoxide)	<23.9	µg/kg	167							U
1-Methylnaphthalene	<4.80	µg/kg	6.67							U
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	<7.81	µg/kg	33.0							U
2,3,4,6-Tetrachlorophenol	<24.4	µg/kg	67.0							U
2,4,5-Trichlorophenol	<19.8	µg/kg	33.0							U
2,4,6-Trichlorophenol	<8.87	µg/kg	33.0							U
2,4-Dichlorophenol	<17.9	µg/kg	33.0							U
2,4-Dimethylphenol	<17.1	µg/kg	33.0							U
2,4-Dinitrophenol	<244	µg/kg	333							U
2,4-Dinitrotoluene (2,4-DNT)	<21.6	µg/kg	33.0							U
2,6-Dinitrotoluene (2,6-DNT)	<8.51	µg/kg	33.0							U
2-Chloronaphthalene	<4.66	µg/kg	6.67							U
2-Chlorophenol	<21.8	µg/kg	33.0							U
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	<27.8	µg/kg	33.0							U
2-Methylnaphthalene	<3.39	µg/kg	6.67							U
2-Methylphenol (o-Cresol)	<9.01	µg/kg	33.0							U
2-Nitroaniline	<18.5	µg/kg	33.0							U
2-Nitrophenol	<9.50	µg/kg	33.0							U
3&4-Methylphenol	<18.2	µg/kg	33.0							U
3,3'-Dichlorobenzidine	<15.6	µg/kg	167							U
3-Nitroaniline	<19.4	µg/kg	33.0							U
4-Bromophenyl phenyl ether (BDE-3)	<18.3	µg/kg	33.0							U
4-Chloro-3-methylphenol	<9.50	µg/kg	33.0							U
4-Chloroaniline	<16.9	µg/kg	67.0							U
4-Chlorophenyl phenylether	<9.21	µg/kg	33.0							U
4-Nitroaniline	<51.7	µg/kg	167							U
4-Nitrophenol	<78.1	µg/kg	333							U
Acenaphthene	<4.82	µg/kg	6.67							U
Acenaphthylene	<5.78	µg/kg	6.67							U
Acetophenone	<5.22	µg/kg	33.0							U
Anthracene	<4.70	µg/kg	6.67							U
Atrazine	<19.5	µg/kg	33.0							U
Benzaldehyde	<51.2	µg/kg	67.0							U
Benzo(a)anthracene	<5.76	µg/kg	6.67							U
Benzo(a)pyrene	<4.09	µg/kg	6.67							U
Benzo(b)fluoranthene	<4.97	µg/kg	6.67							U
Benzo(g,h,i)perylene	<5.11	µg/kg	6.67							U
Benzo(k)fluoranthene	<5.05	µg/kg	6.67							U
bis(2-Chloroethoxy)methane	<21.1	µg/kg	33.0							U
bis(2-Chloroethyl) ether	<9.44	µg/kg	33.0							U

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422965

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3835774

MB	CLIENT ID: Method Blank	Lab ID: QC-2422965-001
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Method: EPA 8270E**Dilution:** 1**Analysis Date:** 01/21/26 16:32**Prep Date:** 01/20/26 13:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Butyl benzyl phthalate	<41.7	µg/kg	67.0							U
Caprolactam	<30.1	µg/kg	33.0							U
Carbazole	<9.82	µg/kg	33.0							U
Chrysene	<5.39	µg/kg	6.67							U
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	<27.6	µg/kg	33.0							U
Dibenz(a,h) anthracene	<3.60	µg/kg	33.0							U
Dibenzofuran	<4.90	µg/kg	33.0							U
Diethyl phthalate	<11.3	µg/kg	33.0							U
Dimethyl phthalate	<6.50	µg/kg	33.0							U
Fluoranthene	<3.20	µg/kg	6.67							U
Fluorene	<4.84	µg/kg	6.67							U
Hexachlorobenzene	<9.70	µg/kg	33.0							U
Hexachlorobutadiene	<7.85	µg/kg	33.0							U
Hexachlorocyclopentadiene	<31.6	µg/kg	33.0							U
Hexachloroethane	<13.8	µg/kg	33.0							U
Indeno(1,2,3-cd) pyrene	<4.64	µg/kg	6.67							U
Isophorone	<6.51	µg/kg	167							U
Methylphenol, Total	<9.01	µg/kg	67.0							U
Naphthalene	<4.26	µg/kg	6.67							U
Nitrobenzene	<11.2	µg/kg	167							U
n-Nitrosodi-n-propylamine	<5.50	µg/kg	33.0							U
N-Nitrosodiphenylamine	<19.3	µg/kg	33.0							U
Pentachlorophenol	<26.5	µg/kg	33.0							U
Phenanthrene	<3.10	µg/kg	6.67							U
Phenol	<16.7	µg/kg	33.0							U
Pyrene	<3.33	µg/kg	6.67							U
Pyridine	<65.6	µg/kg	167							U
Surr: 2,4,6-Tribromophenol	2570	µg/kg		3333		77.1	48-94			
Surr: 2-Fluorobiphenyl	2640	µg/kg		3333		79.2	50-103			
Surr: 2-Fluorophenol	2590	µg/kg		3333		77.7	43-105			
Surr: 4-Terphenyl-d14	2860	µg/kg		3333		85.8	55-111			
Surr: Nitrobenzene-d5	3020	µg/kg		3333		90.5	47-100			
Surr: Phenol-d6	2610	µg/kg		3333		78.3	49-110			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2422965-002
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Method: EPA 8270E**Dilution:** 1**Analysis Date:** 01/21/26 16:53**Prep Date:** 01/20/26 13:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	1040	µg/kg	33.0	1333		78.3	57-101			
1,2,4,5-Tetrachlorobenzene	1070	µg/kg	33.0	1333		80.2	54-98			
1-Methylnaphthalene	1060	µg/kg	6.67	1333		79.8	56-100			
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	1060	µg/kg	33.0	1333		79.9	50-101			
2,3,4,6-Tetrachlorophenol	1080	µg/kg	67.0	1333		81.1	48-103			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422965

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3835774

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2422965-002
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Method: EPA 8270E

Dilution: 1

Analysis Date: 01/21/26 16:53

Prep Date: 01/20/26 13:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	1110	µg/kg	33.0	1333		83.5	54-98			
2,4,6-Trichlorophenol	1090	µg/kg	33.0	1333		81.4	56-97			
2,4-Dichlorophenol	1080	µg/kg	33.0	1333		81.2	54-99			
2,4-Dimethylphenol	979	µg/kg	33.0	1333		73.4	47-102			
2,4-Dinitrophenol	1110	µg/kg	333	1333		83.6	10-100			
2,4-Dinitrotoluene (2,4-DNT)	1110	µg/kg	33.0	1333		83.2	62-105			
2,6-Dinitrotoluene (2,6-DNT)	1080	µg/kg	33.0	1333		81.3	62-103			
2-Chloronaphthalene	1050	µg/kg	6.67	1333		78.6	57-101			
2-Chlorophenol	1040	µg/kg	33.0	1333		77.7	52-102			
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	1210	µg/kg	33.0	1333		91.0	42-104			
2-Methylnaphthalene	1060	µg/kg	6.67	1333		79.4	55-102			
2-Methylphenol (o-Cresol)	1010	µg/kg	33.0	1333		76.0	54-103			
2-Nitroaniline	1200	µg/kg	33.0	1333		89.9	57-103			
2-Nitrophenol	1220	µg/kg	33.0	1333		91.4	52-102			
3&4-Methylphenol	990	µg/kg	33.0	1333		74.3	56-103			
3,3'-Dichlorobenzidine	856	µg/kg	167	1333		64.2	41-91			
3-Nitroaniline	707	µg/kg	33.0	1333		53.0	35-107			
4-Bromophenyl phenyl ether (BDE-3)	1090	µg/kg	33.0	1333		81.7	63-104			
4-Chloro-3-methylphenol	1100	µg/kg	33.0	1333		82.7	57-103			
4-Chloroaniline	1140	µg/kg	67.0	1333		85.9	32-99			
4-Chlorophenyl phenylether	1030	µg/kg	33.0	1333		77.5	62-100			
4-Nitroaniline	507	µg/kg	167	1333		38.0	19-124			
4-Nitrophenol	1060	µg/kg	333	1333		79.6	44-106			
Acenaphthene	1040	µg/kg	6.67	1333		78.4	60-101			
Acenaphthylene	1080	µg/kg	6.67	1333		80.8	59-101			
Acetophenone	1030	µg/kg	33.0	1333		77.0	54-102			
Anthracene	1070	µg/kg	6.67	1333		80.3	63-96			
Atrazine	1090	µg/kg	33.0	1333		82.0	60-110			
Benzaldehyde	177	µg/kg	67.0	1333		13.3	10-143			
Benzo(a)anthracene	1100	µg/kg	6.67	1333		82.7	66-102			
Benzo(a)pyrene	1140	µg/kg	6.67	1333		85.5	66-105			
Benzo(b)fluoranthene	1140	µg/kg	6.67	1333		85.6	67-105			
Benzo(g,h,i)perylene	1150	µg/kg	6.67	1333		86.4	59-110			
Benzo(k)fluoranthene	1090	µg/kg	6.67	1333		81.6	68-106			
bis(2-Chloroethoxy)methane	1060	µg/kg	33.0	1333		79.9	54-102			
bis(2-Chloroethyl) ether	1050	µg/kg	33.0	1333		79.0	51-101			
Butyl benzyl phthalate	1160	µg/kg	67.0	1333		86.9	59-107			
Caprolactam	1070	µg/kg	33.0	1333		80.0	49-103			
Carbazole	1090	µg/kg	33.0	1333		81.7	63-103			
Chrysene	1110	µg/kg	6.67	1333		83.3	66-105			
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	1230	µg/kg	33.0	1333		92.4	63-101			
Dibenz(a,h) anthracene	1170	µg/kg	33.0	1333		88.0	61-109			
Dibenzofuran	1060	µg/kg	33.0	1333		79.6	61-101			
Diethyl phthalate	1090	µg/kg	33.0	1333		81.5	63-105			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422965

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3835774

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2422965-002
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Method: EPA 8270E**Dilution:** 1**Analysis Date:** 01/21/26 16:53**Prep Date:** 01/20/26 13:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Dimethyl phthalate	1060	µg/kg	33.0	1333		79.3	64-104			
Fluoranthene	1100	µg/kg	6.67	1333		82.3	66-105			
Fluorene	1060	µg/kg	6.67	1333		79.5	62-101			
Hexachlorobenzene	1110	µg/kg	33.0	1333		83.6	61-104			
Hexachlorobutadiene	1090	µg/kg	33.0	1333		81.7	52-99			
Hexachlorocyclopentadiene	945	µg/kg	33.0	1333		70.9	39-106			
Hexachloroethane	1050	µg/kg	33.0	1333		79.0	59-99			
Indeno(1,2,3-cd) pyrene	1220	µg/kg	6.67	1333		91.6	57-114			
Isophorone	1080	µg/kg	167	1333		81.3	55-101			
Methylphenol, Total	2000	µg/kg	67.0	2667		75.1	54-103			
Naphthalene	1090	µg/kg	6.67	1333		81.6	54-99			
Nitrobenzene	1150	µg/kg	167	1333		86.4	53-100			
n-Nitrosodi-n-propylamine	1060	µg/kg	33.0	1333		79.2	52-104			
N-Nitrosodiphenylamine	1090	µg/kg	33.0	1333		81.6	61-104			
Pentachlorophenol	1060	µg/kg	33.0	1333		79.2	35-100			
Phenanthrene	1120	µg/kg	6.67	1333		84.0	64-101			
Phenol	1010	µg/kg	33.0	1333		75.8	51-107			
Pyrene	1110	µg/kg	6.67	1333		83.3	62-114			
Pyridine	803	µg/kg	167	1333		60.2	40-84			
Surr: 2,4,6-Tribromophenol	2590	µg/kg		3333		77.6	48-94			
Surr: 2-Fluorobiphenyl	2540	µg/kg		3333		76.2	50-103			
Surr: 2-Fluorophenol	2520	µg/kg		3333		75.6	43-105			
Surr: 4-Terphenyl-d14	2710	µg/kg		3333		81.4	55-111			
Surr: Nitrobenzene-d5	3140	µg/kg		3333		94.3	47-100			
Surr: Phenol-d6	2600	µg/kg		3333		77.9	49-110			

MS	CLIENT ID: Batch QC	Lab ID: QC-2422965-005
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Method: EPA 8270E**Dilution:** 1**Analysis Date:** 01/21/26 17:14**Prep Date:** 01/20/26 13:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	1760	µg/kg	60.0	2180.5	<8.85	80.8	57-101			
1,2,4,5-Tetrachlorobenzene	1810	µg/kg	605	2180.5	<12.6	83.0	54-98			
1-Methylnaphthalene	1830	µg/kg	12.1	2180.5	<7.85	83.9	56-100			
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	1770	µg/kg	60.0	2180.5	<12.8	81.2	50-101			
2,3,4,6-Tetrachlorophenol	1900	µg/kg	121	2180.5	<39.9	87.2	48-103			
2,4,5-Trichlorophenol	1930	µg/kg	60.0	2180.5	<32.3	88.7	54-98			
2,4,6-Trichlorophenol	1800	µg/kg	60.0	2180.5	<14.5	82.6	56-97			
2,4-Dichlorophenol	1870	µg/kg	60.0	2180.5	<29.3	85.6	54-99			
2,4-Dimethylphenol	1510	µg/kg	60.0	2180.5	<28.0	69.1	47-102			
2,4-Dinitrophenol	925	µg/kg	605	2180.5	<399	42.4	10-100			
2,4-Dinitrotoluene (2,4-DNT)	1850	µg/kg	60.0	2180.5	<35.4	84.6	62-105			
2,6-Dinitrotoluene (2,6-DNT)	1860	µg/kg	60.0	2180.5	<13.9	85.2	62-103			
2-Chloronaphthalene	1760	µg/kg	12.1	2180.5	<7.62	80.8	57-101			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422965

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3835774

MS	CLIENT ID: Batch QC	Lab ID: QC-2422965-005
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Method: EPA 8270E

Dilution: 1

Analysis Date: 01/21/26 17:14

Prep Date: 01/20/26 13:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2-Chlorophenol	1740	µg/kg	60.0	2180.5	<35.7	79.8	52-102			
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	1870	µg/kg	60.0	2180.5	<45.5	85.6	42-104			
2-Methylnaphthalene	1780	µg/kg	12.1	2180.5	<5.55	81.8	55-102			
2-Methylphenol (o-Cresol)	1640	µg/kg	60.0	2180.5	<14.7	75.2	54-103			
2-Nitroaniline	2060	µg/kg	60.0	2180.5	<30.3	94.6	57-103			
2-Nitrophenol	2090	µg/kg	60.0	2180.5	<15.5	95.9	52-102			
3&4-Methylphenol	1620	µg/kg	60.0	2180.5	<29.7	74.5	56-103			
3,3'-Dichlorobenzidine	1520	µg/kg	303	2180.5	<25.5	69.6	41-91			
3-Nitroaniline	1150	µg/kg	60.0	2180.5	<31.7	52.8	35-107			
4-Bromophenyl phenyl ether (BDE-3)	1860	µg/kg	60.0	2180.5	<29.9	85.5	63-104			
4-Chloro-3-methylphenol	1850	µg/kg	60.0	2180.5	<15.5	84.8	57-103			
4-Chloroaniline	1930	µg/kg	121	2180.5	<27.7	88.3	32-99			
4-Chlorophenyl phenylether	1700	µg/kg	60.0	2180.5	<15.1	78.0	62-100			
4-Nitroaniline	844	µg/kg	303	2180.5	<84.6	38.7	19-124			
4-Nitrophenol	1790	µg/kg	605	2180.5	<128	82.2	44-106			
Acenaphthene	1770	µg/kg	12.1	2180.5	<7.88	81.1	60-101			
Acenaphthylene	1810	µg/kg	12.1	2180.5	<9.45	83.1	59-101			
Acetophenone	1690	µg/kg	60.0	2180.5	<8.54	77.4	54-102			
Anthracene	1850	µg/kg	12.1	2180.5	<7.69	84.8	63-96			
Atrazine	1850	µg/kg	60.0	2180.5	<31.9	84.9	60-110			
Benzaldehyde	257	µg/kg	121	2180.5	<83.8	11.8	10-143			
Benzo(a)anthracene	1880	µg/kg	12.1	2180.5	<9.42	86.1	66-102			
Benzo(a)pyrene	1950	µg/kg	12.1	2180.5	<6.69	89.4	66-105			
Benzo(b)fluoranthene	1900	µg/kg	12.1	2180.5	<8.13	87.0	67-105			
Benzo(g,h,i)perylene	1970	µg/kg	12.1	2180.5	<8.36	90.1	59-110			
Benzo(k)fluoranthene	1860	µg/kg	12.1	2180.5	<8.26	85.5	68-106			
bis(2-Chloroethoxy)methane	1770	µg/kg	60.0	2180.5	<34.5	81.2	54-102			
bis(2-Chloroethyl) ether	1720	µg/kg	60.0	2180.5	<15.4	79.0	51-101			
Butyl benzyl phthalate	1950	µg/kg	121	2180.5	<68.3	89.3	59-107			
Caprolactam	1930	µg/kg	60.0	2180.5	<49.2	88.7	49-103			
Carbazole	1820	µg/kg	60.0	2180.5	<16.1	83.6	63-103			
Chrysene	1900	µg/kg	12.1	2180.5	<9.31	87.2	66-105			
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	2050	µg/kg	60.0	2180.5	<45.1	94.2	63-101			
Dibenz(a,h) anthracene	1970	µg/kg	60.0	2180.5	<5.89	90.1	61-109			
Dibenzofuran	1770	µg/kg	60.0	2180.5	<8.02	81.2	61-101			
Diethyl phthalate	1800	µg/kg	60.0	2180.5	<18.5	82.6	63-105			
Dimethyl phthalate	1770	µg/kg	60.0	2180.5	<10.6	81.4	64-104			
Fluoranthene	1850	µg/kg	12.1	2180.5	<5.23	85.0	66-105			
Fluorene	1770	µg/kg	12.1	2180.5	<7.92	81.3	62-101			
Hexachlorobenzene	1830	µg/kg	60.0	2180.5	<15.9	83.8	61-104			
Hexachlorobutadiene	1800	µg/kg	60.0	2180.5	<12.8	82.7	52-99			
Hexachlorocyclopentadiene	1580	µg/kg	60.0	2180.5	<53.3	72.5	39-106			
Hexachloroethane	1730	µg/kg	60.0	2180.5	<22.6	79.5	59-99			
Indeno(1,2,3-cd) pyrene	2020	µg/kg	12.1	2180.5	<7.59	92.6	57-114			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422965

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3835774

MS		CLIENT ID: Batch QC				Lab ID: QC-2422965-005				
Method: EPA 8270E		Dilution: 1				Analysis Date: 01/21/26 17:14				
						Prep Date: 01/20/26 13:30				
Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Isophorone	1840	µg/kg	303	2180.5	<10.6	84.2	55-101			
Methylphenol, Total	3260	µg/kg	60.0	4362.6	<14.7	74.8	54-103			
Naphthalene	1820	µg/kg	12.1	2180.5	<6.97	83.4	54-99			
Nitrobenzene	1970	µg/kg	303	2180.5	<18.3	90.5	53-100			
n-Nitrosodi-n-propylamine	1710	µg/kg	60.0	2180.5	<9.00	78.2	52-104			
N-Nitrosodiphenylamine	1880	µg/kg	60.0	2180.5	<31.6	86.3	61-104			
Pentachlorophenol	1850	µg/kg	60.0	2180.5	<43.3	85.1	35-100			
Phenanthrene	1860	µg/kg	12.1	2180.5	<5.07	85.5	64-101			
Phenol	1650	µg/kg	60.0	2180.5	<27.4	75.5	51-107			
Pyrene	1910	µg/kg	12.1	2180.5	<5.44	87.4	52-114			
Pyridine	1600	µg/kg	303	2180.5	<107	73.2	40-84			
Surr: 2,4,6-Tribromophenol	4370	µg/kg		5452		80.1	48-94			
Surr: 2-Fluorobiphenyl	4250	µg/kg		5452		78.0	50-103			
Surr: 2-Fluorophenol	4280	µg/kg		5452		78.5	43-105			
Surr: 4-Terphenyl-d14	4560	µg/kg		5452		83.7	55-111			
Surr: Nitrobenzene-d5	5330	µg/kg		5452		97.8	47-100			
Surr: Phenol-d6	4260	µg/kg		5452		78.2	49-110			

MSD		CLIENT ID: Batch QC				Lab ID: QC-2422965-006				
Method: EPA 8270E		Dilution: 1				Analysis Date: 01/21/26 17:35				
						Prep Date: 01/20/26 13:30				
Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	1790	µg/kg	59.9	2178.1	<8.84	82.3	57-101	1.73	30	
1,2,4,5-Tetrachlorobenzene	1820	µg/kg	604	2178.1	<12.6	83.7	54-98	0.731	30	
1-Methylnaphthalene	1870	µg/kg	12.1	2178.1	<7.84	86.0	56-100	2.30	30	
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	1860	µg/kg	59.9	2178.1	<12.8	85.5	50-101	5.05	30	
2,3,4,6-Tetrachlorophenol	1940	µg/kg	121	2178.1	<39.9	89.1	48-103	2.05	30	
2,4,5-Trichlorophenol	1990	µg/kg	59.9	2178.1	<32.3	91.5	54-98	2.94	30	
2,4,6-Trichlorophenol	1840	µg/kg	59.9	2178.1	<14.5	84.3	56-97	1.87	30	
2,4-Dichlorophenol	1930	µg/kg	59.9	2178.1	<29.3	88.8	54-99	3.62	30	
2,4-Dimethylphenol	1450	µg/kg	59.9	2178.1	<28.0	66.5	47-102	3.87	30	
2,4-Dinitrophenol	902	µg/kg	604	2178.1	<398	41.4	10-100	2.50	30	
2,4-Dinitrotoluene (2,4-DNT)	1860	µg/kg	59.9	2178.1	<35.4	85.2	62-105	0.598	30	
2,6-Dinitrotoluene (2,6-DNT)	1800	µg/kg	59.9	2178.1	<13.9	82.7	62-103	3.09	30	
2-Chloronaphthalene	1780	µg/kg	12.1	2178.1	<7.61	81.8	57-101	1.06	30	
2-Chlorophenol	1810	µg/kg	59.9	2178.1	<35.6	83.2	52-102	4.13	30	
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	1940	µg/kg	59.9	2178.1	<45.5	89.1	42-104	3.84	30	
2-Methylnaphthalene	1840	µg/kg	12.1	2178.1	<5.54	84.4	55-102	3.02	30	
2-Methylphenol (o-Cresol)	1630	µg/kg	59.9	2178.1	<14.7	74.9	54-103	0.509	30	
2-Nitroaniline	2060	µg/kg	59.9	2178.1	<30.2	94.7	57-103	0.0032	30	
								8		
2-Nitrophenol	2190	µg/kg	59.9	2178.1	<15.5	101	52-102	4.77	30	
3&4-Methylphenol	1640	µg/kg	59.9	2178.1	<29.7	75.3	56-103	1.03	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422965

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3835774

MSD	CLIENT ID: Batch QC	Lab ID: QC-2422965-006
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Method: EPA 8270E

Dilution: 1

Analysis Date: 01/21/26 17:35

Prep Date: 01/20/26 13:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
3,3'-Dichlorobenzidine	1590	µg/kg	302	2178.1	<25.4	72.9	41-91	4.53	30	
3-Nitroaniline	1040	µg/kg	59.9	2178.1	<31.6	47.9	35-107	9.85	30	
4-Bromophenyl phenyl ether (BDE-3)	1880	µg/kg	59.9	2178.1	<29.8	86.5	63-104	1.05	30	
4-Chloro-3-methylphenol	1900	µg/kg	59.9	2178.1	<15.5	87.1	57-103	2.57	30	
4-Chloroaniline	1940	µg/kg	121	2178.1	<27.7	89.1	32-99	0.737	30	
4-Chlorophenyl phenylether	1730	µg/kg	59.9	2178.1	<15.0	79.3	62-100	1.61	30	
4-Nitroaniline	781	µg/kg	302	2178.1	<84.5	35.9	19-124	7.75	30	
4-Nitrophenol	1820	µg/kg	604	2178.1	<128	83.6	44-106	1.58	30	
Acenaphthene	1800	µg/kg	12.1	2178.1	<7.88	82.7	60-101	1.84	30	
Acenaphthylene	1850	µg/kg	12.1	2178.1	<9.44	84.8	59-101	1.98	30	
Acetophenone	1730	µg/kg	59.9	2178.1	<8.53	79.3	54-102	2.25	30	
Anthracene	1880	µg/kg	12.1	2178.1	<7.68	86.1	63-96	1.47	30	
Atrazine	1850	µg/kg	59.9	2178.1	<31.9	84.9	60-110	0.109	30	
Benzaldehyde	260	µg/kg	121	2178.1	<83.7	12.0	10-143	1.15	30	
Benzo(a)anthracene	1870	µg/kg	12.1	2178.1	<9.41	85.7	66-102	0.517	30	
Benzo(a)pyrene	1970	µg/kg	12.1	2178.1	<6.68	90.5	66-105	1.11	30	
Benzo(b)fluoranthene	1910	µg/kg	12.1	2178.1	<8.12	87.6	67-105	0.578	30	
Benzo(g,h,i)perylene	2010	µg/kg	12.1	2178.1	<8.35	92.4	59-110	2.41	30	
Benzo(k)fluoranthene	1890	µg/kg	12.1	2178.1	<8.25	86.6	68-106	1.23	30	
bis(2-Chloroethoxy)methane	1860	µg/kg	59.9	2178.1	<34.5	85.5	54-102	5.05	30	
bis(2-Chloroethyl) ether	1810	µg/kg	59.9	2178.1	<15.4	82.9	51-101	4.71	30	
Butyl benzyl phthalate	1970	µg/kg	121	2178.1	<68.2	90.5	59-107	1.23	30	
Caprolactam	1950	µg/kg	59.9	2178.1	<49.2	89.3	49-103	0.622	30	
Carbazole	1850	µg/kg	59.9	2178.1	<16.1	84.8	63-103	1.32	30	
Chrysene	1910	µg/kg	12.1	2178.1	<9.30	87.7	66-105	0.463	30	
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	2070	µg/kg	59.9	2178.1	<45.0	95.2	63-101	0.947	30	
Dibenz(a,h) anthracene	2020	µg/kg	59.9	2178.1	<5.88	92.7	61-109	2.74	30	
Dibenzofuran	1790	µg/kg	59.9	2178.1	<8.01	82.0	61-101	0.871	30	
Diethyl phthalate	1820	µg/kg	59.9	2178.1	<18.5	83.5	63-105	0.975	30	
Dimethyl phthalate	1840	µg/kg	59.9	2178.1	<10.6	84.3	64-104	3.39	30	
Fluoranthene	1870	µg/kg	12.1	2178.1	<5.23	86.1	66-105	1.12	30	
Fluorene	1780	µg/kg	12.1	2178.1	<7.91	81.9	62-101	0.627	30	
Hexachlorobenzene	1860	µg/kg	59.9	2178.1	<15.8	85.2	61-104	1.55	30	
Hexachlorobutadiene	1830	µg/kg	59.9	2178.1	<12.8	83.8	52-99	1.21	30	
Hexachlorocyclopentadiene	1580	µg/kg	59.9	2178.1	<53.3	72.7	39-106	0.0977	30	
Hexachloroethane	1810	µg/kg	59.9	2178.1	<22.5	83.1	59-99	4.26	30	
Indeno(1,2,3-cd) pyrene	2090	µg/kg	12.1	2178.1	<7.58	96.2	57-114	3.71	30	
Isophorone	1890	µg/kg	302	2178.1	<10.6	86.9	55-101	2.99	30	
Methylphenol, Total	3270	µg/kg	67.0	4357.8	<14.7	75.1	54-103	0.258	30	
Naphthalene	1840	µg/kg	12.1	2178.1	<6.96	84.3	54-99	0.964	30	
Nitrobenzene	1970	µg/kg	302	2178.1	<18.3	90.5	53-100	0.109	30	
n-Nitrosodi-n-propylamine	1840	µg/kg	59.9	2178.1	<8.99	84.6	52-104	7.75	30	
N-Nitrosodiphenylamine	1890	µg/kg	59.9	2178.1	<31.5	86.6	61-104	0.180	30	
Pentachlorophenol	1790	µg/kg	59.9	2178.1	<43.3	82.0	35-100	3.76	30	
Phenanthrene	1880	µg/kg	12.1	2178.1	<5.07	86.5	64-101	0.996	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422965

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3835774

MSD		CLIENT ID: Batch QC				Lab ID: QC-2422965-006				
Method: EPA 8270E		Dilution: 1				Analysis Date: 01/21/26 17:35				
						Prep Date: 01/20/26 13:30				
Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Phenol	1740	µg/kg	59.9	2178.1	<27.4	79.7	51-107	5.30	30	
Pyrene	1900	µg/kg	12.1	2178.1	<5.43	87.2	52-114	0.281	30	
Pyridine	1650	µg/kg	302	2178.1	<107	75.6	40-84	3.05	30	
Surr: 2,4,6-Tribromophenol	4400	µg/kg		5446.1		80.8	48-94	0.686	30	
Surr: 2-Fluorobiphenyl	4290	µg/kg		5446.1		78.7	50-103	0.835	30	
Surr: 2-Fluorophenol	4300	µg/kg		5446.1		79.0	43-105	0.526	30	
Surr: 4-Terphenyl-d14	4530	µg/kg		5446.1		83.1	55-111	0.828	30	
Surr: Nitrobenzene-d5	5300	µg/kg		5446.1		97.3	47-100	0.601	30	
Surr: Phenol-d6	4460	µg/kg		5446.1		81.9	49-110	4.54	30	

The following samples were analyzed in this batch: HN2600829-001, HN2600829-002, HN2600829-003



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422019

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3833207

Volatile Organic Compounds by GC-MS

MB	CLIENT ID: Method Blank	Lab ID: QC-2422019-001
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/20/26 15:20

Prep Date: 01/19/26 12:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	<13.6	µg/kg	30.0							U
1,1,2,2-Tetrachloroethane	<13.2	µg/kg	30.0							U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<19.0	µg/kg	30.0							U
1,1,2-Trichloroethane	<12.8	µg/kg	30.0							U
1,1-Dichloroethane	<10.9	µg/kg	30.0							U
1,1-Dichloroethylene	<9.72	µg/kg	30.0							U
1,2,3-Trichlorobenzene	<36.0	µg/kg	100							U
1,2,3-Trichloropropane	<12.6	µg/kg	30.0							U
1,2,4-Trichlorobenzene	<34.0	µg/kg	100							U
1,2,4-Trimethylbenzene	<22.0	µg/kg	30.0							U
1,2-Dibromo-3-chloropropane (DBCP)	<27.6	µg/kg	100							U
1,2-Dibromoethane (EDB, Ethylene dibromide)	<17.6	µg/kg	30.0							U
1,2-Dichlorobenzene (o-Dichlorobenzene)	<11.4	µg/kg	30.0							U
1,2-Dichloroethane (Ethylene dichloride)	<26.3	µg/kg	100							U
1,2-Dichloropropane	<22.1	µg/kg	30.0							U
1,3,5-Trimethylbenzene	<21.2	µg/kg	100							U
1,3-Dichlorobenzene (m-Dichlorobenzene)	<20.7	µg/kg	30.0							U
1,3-Dichloropropene	<16.8	µg/kg	60.0							U
1,4-Dichlorobenzene (p-Dichlorobenzene)	<24.4	µg/kg	30.0							U
2-Butanone (Methyl ethyl ketone, MEK)	<71.4	µg/kg	200							U
2-Hexanone	<14.9	µg/kg	30.0							U
4-Methyl-2-pentanone (MIBK)	<28.0	µg/kg	30.0							U
Acetone	<89.0	µg/kg	100							U
Benzene	<14.5	µg/kg	30.0							U
Bromochloromethane	<15.3	µg/kg	30.0							U
Bromodichloromethane	<16.8	µg/kg	30.0							U
Bromoform	<12.6	µg/kg	30.0							U
Carbon disulfide	<15.5	µg/kg	30.0							U
Carbon tetrachloride	<11.7	µg/kg	30.0							U
Chlorobenzene	<9.96	µg/kg	30.0							U
Chlorodibromomethane	<16.8	µg/kg	30.0							U
Chloroethane (Ethyl chloride)	<84.0	µg/kg	100							U
Chloroform	<11.0	µg/kg	30.0							U
cis-1,2-Dichloroethylene	<19.3	µg/kg	30.0							U
cis-1,3-Dichloropropene	<22.6	µg/kg	30.0							U
Cyclohexane	<23.0	µg/kg	100							U
Dichlorodifluoromethane (Freon-12)	<36.3	µg/kg	100							U
Ethylbenzene	<21.3	µg/kg	30.0							U

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422019

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3833207

MB	CLIENT ID: Method Blank	Lab ID: QC-2422019-001
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/20/26 15:20

Prep Date: 01/19/26 12:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Isopropylbenzene	<19.0	µg/kg	30.0							U
m+p-Xylene	<40.0	µg/kg	60.0							U
Methyl acetate	<35.9	µg/kg	250							U
Methyl bromide (Bromomethane)	<57.4	µg/kg	100							U
Methyl chloride (Chloromethane)	<82.0	µg/kg	100							U
Methyl tert-butyl ether (MTBE)	<21.9	µg/kg	30.0							U
Methylcyclohexane	<11.4	µg/kg	30.0							U
Methylene chloride (Dichloromethane)	<79.6	µg/kg	250							U
o-Xylene	<11.6	µg/kg	30.0							U
Styrene	<11.9	µg/kg	30.0							U
Tetrachloroethylene (Perchloroethylene)	<18.1	µg/kg	30.0							U
Toluene	<24.7	µg/kg	30.0							U
Total Xylene	<11.6	µg/kg	90.0							U
trans-1,2-Dichloroethylene	<24.8	µg/kg	30.0							U
trans-1,3-Dichloropropylene	<16.8	µg/kg	30.0							U
Trichloroethene (Trichloroethylene)	<13.4	µg/kg	30.0							U
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	<15.3	µg/kg	30.0							U
Vinyl chloride (Chloroethene)	<19.9	µg/kg	30.0							U
Surr: 1,2-Dichloroethane-d4	1040	µg/kg		1000		104	80-120			
Surr: 4-Bromofluorobenzene	1030	µg/kg		1000		103	80-120			
Surr: Dibromofluoromethane	1020	µg/kg		1000		102	72-120			
Surr: Toluene-d8	958	µg/kg		1000		95.8	80-120			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2422019-002
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/20/26 14:21

Prep Date: 01/19/26 12:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	923	µg/kg	30.0	1000		92.3	75-121			
1,1,2,2-Tetrachloroethane	930	µg/kg	30.0	1000		93.0	79-125			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	956	µg/kg	30.0	1000		95.6	62-129			
1,1,2-Trichloroethane	936	µg/kg	30.0	1000		93.6	80-123			
1,1-Dichloroethane	873	µg/kg	30.0	1000		87.3	74-124			
1,1-Dichloroethylene	880	µg/kg	30.0	1000		88.0	68-131			
1,2,3-Trichlorobenzene	906	µg/kg	100	1000		90.6	60-135			
1,2,3-Trichloropropane	936	µg/kg	30.0	1000		93.6	77-121			
1,2,4-Trichlorobenzene	923	µg/kg	100	1000		92.3	63-130			
1,2,4-Trimethylbenzene	949	µg/kg	30.0	1000		94.9	64-126			
1,2-Dibromo-3-chloropropane (DBCP)	825	µg/kg	100	1000		82.5	55-135			
1,2-Dibromoethane (EDB, Ethylene dibromide)	971	µg/kg	30.0	1000		97.1	63-155			
1,2-Dichlorobenzene (o-Dichlorobenzene)	902	µg/kg	30.0	1000		90.2	77-122			



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422019

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3833207

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2422019-002
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/20/26 14:21

Prep Date: 01/19/26 12:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,2-Dichloroethane (Ethylene dichloride)	948	µg/kg	100	1000		94.8	70-130			
1,2-Dichloropropane	876	µg/kg	30.0	1000		87.6	71-130			
1,3,5-Trimethylbenzene	981	µg/kg	100	1000		98.1	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	914	µg/kg	30.0	1000		91.4	78-121			
1,3-Dichloropropene	1790	µg/kg	60.0	2000		89.3	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	888	µg/kg	30.0	1000		88.8	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	976	µg/kg	200	1000		97.6	47-164			
2-Hexanone	984	µg/kg	30.0	1000		98.4	70-137			
4-Methyl-2-pentanone (MIBK)	1560	µg/kg	30.0	1000		156	57-200			
Acetone	942	µg/kg	100	1000		94.2	52-190			
Benzene	941	µg/kg	30.0	1000		94.1	78-122			
Bromochloromethane	903	µg/kg	30.0	1000		90.3	68-130			
Bromodichloromethane	930	µg/kg	30.0	1000		93.0	75-125			
Bromoform	904	µg/kg	30.0	1000		90.4	59-120			
Carbon disulfide	1010	µg/kg	30.0	1000		101	60-163			
Carbon tetrachloride	902	µg/kg	30.0	1000		90.2	69-123			
Chlorobenzene	934	µg/kg	30.0	1000		93.4	79-120			
Chlorodibromomethane	924	µg/kg	30.0	1000		92.4	57-123			
Chloroethane (Ethyl chloride)	646	µg/kg	100	1000		64.6	38-132			
Chloroform	896	µg/kg	30.0	1000		89.6	72-122			
cis-1,2-Dichloroethylene	896	µg/kg	30.0	1000		89.6	74-125			
cis-1,3-Dichloropropene	902	µg/kg	30.0	1000		90.2	62-124			
Dichlorodifluoromethane (Freon-12)	538	µg/kg	100	1000		53.8	28-137			
Ethylbenzene	976	µg/kg	30.0	1000		97.6	75-121			
Isopropylbenzene	974	µg/kg	30.0	1000		97.4	74-121			
m+p-Xylene	2010	µg/kg	60.0	2000		101	67-129			
Methyl acetate	868	µg/kg	250	1000		86.8	61-125			
Methyl bromide (Bromomethane)	653	µg/kg	100	1000		65.3	31-169			
Methyl chloride (Chloromethane)	576	µg/kg	100	1000		57.6	24-119			
Methyl tert-butyl ether (MTBE)	930	µg/kg	30.0	1000		93.0	79-139			
Methylene chloride (Dichloromethane)	807	µg/kg	250	1000		80.7	62-135			
o-Xylene	977	µg/kg	30.0	1000		97.7	75-120			
Styrene	944	µg/kg	30.0	1000		94.4	74-126			
Tetrachloroethylene (Perchloroethylene)	1320	µg/kg	30.0	1000		132	76-128			S
Toluene	925	µg/kg	30.0	1000		92.5	76-120			
Total Xylene	2990	µg/kg	90.0	3000		99.6	67-129			
trans-1,2-Dichloroethylene	901	µg/kg	30.0	1000		90.1	72-127			
trans-1,3-Dichloropropylene	884	µg/kg	30.0	1000		88.4	66-120			
Trichloroethene (Trichloroethylene)	938	µg/kg	30.0	1000		93.8	75-122			
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	686	µg/kg	30.0	1000		68.6	51-115			
Vinyl chloride (Chloroethene)	611	µg/kg	30.0	1000		61.1	43-128			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422019

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3833207

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2422019-002
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/20/26 14:21

Prep Date: 01/19/26 12:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 1,2-Dichloroethane-d4	986	µg/kg		1000		98.6	80-120			
Surr: 4-Bromofluorobenzene	1010	µg/kg		1000		101	80-120			
Surr: Dibromofluoromethane	1010	µg/kg		1000		101	72-120			
Surr: Toluene-d8	992	µg/kg		1000		99.2	80-120			

MS	CLIENT ID: 17174 SB01 (1-2')_2026 0116	Lab ID: QC-2422019-005
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/20/26 22:10

Prep Date: 01/19/26 12:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1000	µg/kg	41.2	1011.1	<13.8	99.0	75-121			
1,1,2,2-Tetrachloroethane	798	µg/kg	41.2	1011.1	<13.4	78.9	79-125			S
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	828	µg/kg	41.2	1011.1	<19.2	81.8	62-129			
1,1,2-Trichloroethane	954	µg/kg	41.2	1011.1	<12.9	94.4	80-123			
1,1-Dichloroethane	914	µg/kg	41.2	1011.1	<11.1	90.4	74-124			
1,1-Dichloroethylene	816	µg/kg	41.2	1011.1	<9.83	80.8	68-131			
1,2,3-Trichlorobenzene	892	µg/kg	137	1011.1	<36.4	88.2	60-135			
1,2,3-Trichloropropane	926	µg/kg	41.2	1011.1	<12.7	91.6	77-121			
1,2,4-Trichlorobenzene	905	µg/kg	137	1011.1	<34.4	89.5	63-130			
1,2,4-Trimethylbenzene	1000	µg/kg	41.2	1011.1	<22.2	98.9	64-126			
1,2-Dibromo-3-chloropropane (DBCP)	803	µg/kg	137	1011.1	<27.9	79.4	55-135			
1,2-Dibromoethane (EDB, Ethylene dibromide)	968	µg/kg	41.2	1011.1	<17.8	95.8	63-155			
1,2-Dichlorobenzene (o-Dichlorobenzene)	910	µg/kg	41.2	1011.1	<11.5	90.0	77-122			
1,2-Dichloroethane (Ethylene dichloride)	969	µg/kg	137	1011.1	<26.6	95.8	70-130			
1,2-Dichloropropane	936	µg/kg	41.2	1011.1	<22.4	92.6	71-130			
1,3,5-Trimethylbenzene	1040	µg/kg	137	1011.1	<21.4	103	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	928	µg/kg	41.2	1011.1	<21.0	91.8	78-121			
1,3-Dichloropropene	1810	µg/kg	82.4	2022.2	<16.9	89.3	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	946	µg/kg	41.2	1011.1	<24.7	93.6	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	1190	µg/kg	275	1011.1	<72.2	118	47-164			
2-Hexanone	1200	µg/kg	41.2	1011.1	<15.0	118	70-137			
4-Methyl-2-pentanone (MIBK)	1380	µg/kg	41.2	1011.1	<28.3	136	57-200			
Acetone	1700	µg/kg	137	1011.1	<90.0	169	52-190			
Benzene	994	µg/kg	41.2	1011.1	<14.7	98.4	78-122			
Bromochloromethane	944	µg/kg	41.2	1011.1	<15.4	93.4	68-130			
Bromodichloromethane	975	µg/kg	41.2	1011.1	<17.0	96.4	75-125			
Bromoform	892	µg/kg	41.2	1011.1	<12.8	88.2	59-120			
Carbon disulfide	800	µg/kg	41.2	1011.1	<15.7	79.1	60-163			
Carbon tetrachloride	939	µg/kg	41.2	1011.1	<11.9	92.9	69-123			
Chlorobenzene	981	µg/kg	41.2	1011.1	<10.1	97.0	79-120			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422019

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3833207

MS	CLIENT ID: 17174 SB01 (1-2')_2026 0116	Lab ID: QC-2422019-005
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/20/26 22:10

Prep Date: 01/19/26 12:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chlorodibromomethane	905	µg/kg	41.2	1011.1	<17.0	89.6	57-123			
Chloroethane (Ethyl chloride)	283	µg/kg	137	1011.1	<84.9	28.0	38-132			S
Chloroform	945	µg/kg	41.2	1011.1	<11.1	93.5	72-122			
cis-1,2-Dichloroethylene	951	µg/kg	41.2	1011.1	<19.5	94.0	74-125			
cis-1,3-Dichloropropene	945	µg/kg	41.2	1011.1	<22.9	93.5	62-124			
Dichlorodifluoromethane (Freon-12)	214	µg/kg	137	1011.1	<36.7	21.2	28-137			S
Ethylbenzene	1040	µg/kg	41.2	1011.1	<21.5	103	75-121			
Isopropylbenzene	1060	µg/kg	41.2	1011.1	<19.2	104	74-121			
m+p-Xylene	2110	µg/kg	82.4	2022.2	<40.4	105	67-129			
Methyl acetate	1020	µg/kg	344	1011.1	<36.3	101	61-125			
Methyl bromide (Bromomethane)	205	µg/kg	137	1011.1	<58.0	20.3	31-169			S
Methyl chloride (Chloromethane)	306	µg/kg	137	1011.1	<82.9	30.2	24-119			
Methyl tert-butyl ether (MTBE)	892	µg/kg	41.2	1011.1	<22.1	88.2	79-139			
Methylene chloride (Dichloromethane)	574	µg/kg	344	1011.1	<80.5	56.8	62-135			S
o-Xylene	1030	µg/kg	41.2	1011.1	<11.7	102	75-120			
Styrene	988	µg/kg	41.2	1011.1	<12.0	97.8	74-126			
Tetrachloroethylene (Perchloroethylene)	1900	µg/kg	41.2	1011.1	<18.3	188	76-128			S
Toluene	989	µg/kg	41.2	1011.1	<25.0	97.8	76-120			
Total Xylene	3140	µg/kg	124	3033.4	<11.7	104	67-129			
trans-1,2-Dichloroethylene	905	µg/kg	41.2	1011.1	<25.0	89.6	72-127			
trans-1,3-Dichloropropylene	860	µg/kg	41.2	1011.1	<16.9	85.0	66-120			
Trichloroethene (Trichloroethylene)	1130	µg/kg	41.2	1011.1	<13.6	112	75-122			
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	552	µg/kg	41.2	1011.1	<15.5	54.6	51-115			
Vinyl chloride (Chloroethene)	355	µg/kg	41.2	1011.1	<20.2	35.1	43-128			S
Surr: 1,2-Dichloroethane-d4	1010	µg/kg		1011.1		99.6	80-120			
Surr: 4-Bromofluorobenzene	1040	µg/kg		1011.1		103	80-120			
Surr: Dibromofluoromethane	978	µg/kg		1011.1		96.8	72-120			
Surr: Toluene-d8	978	µg/kg		1011.1		96.7	80-120			

MSD	CLIENT ID: 17174 SB01 (1-2')_2026 0116	Lab ID: QC-2422019-006
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/20/26 22:30

Prep Date: 01/19/26 12:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	988	µg/kg	41.2	1011.1	<13.8	97.8	75-121	1.22	30	
1,1,2,2-Tetrachloroethane	840	µg/kg	41.2	1011.1	<13.4	83.0	79-125	5.13	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	846	µg/kg	41.2	1011.1	<19.2	83.6	62-129	2.18	30	
1,1,2-Trichloroethane	994	µg/kg	41.2	1011.1	<12.9	98.4	80-123	4.10	30	
1,1-Dichloroethane	915	µg/kg	41.2	1011.1	<11.1	90.4	74-124	0.111	30	
1,1-Dichloroethylene	826	µg/kg	41.2	1011.1	<9.83	81.7	68-131	1.17	30	
1,2,3-Trichlorobenzene	992	µg/kg	137	1011.1	<36.4	98.2	60-135	10.7	30	
1,2,3-Trichloropropane	945	µg/kg	41.2	1011.1	<12.7	93.5	77-121	2.05	30	
1,2,4-Trichlorobenzene	993	µg/kg	137	1011.1	<34.4	98.2	63-130	9.27	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422019

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3833207

MSD	CLIENT ID: 17174 SB01 (1-2')_2026 0116	Lab ID: QC-2422019-006
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/20/26 22:30

Prep Date: 01/19/26 12:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	1040	µg/kg	41.2	1011.1	<22.2	102	64-126	3.48	30	
1,2-Dibromo-3-chloropropane (DBCP)	882	µg/kg	137	1011.1	<27.9	87.2	55-135	9.42	30	
1,2-Dibromoethane (EDB, Ethylene dibromide)	1010	µg/kg	41.2	1011.1	<17.8	99.9	63-155	4.24	30	
1,2-Dichlorobenzene (o-Dichlorobenzene)	1010	µg/kg	41.2	1011.1	<11.5	100	77-122	10.9	30	
1,2-Dichloroethane (Ethylene dichloride)	975	µg/kg	137	1011.1	<26.6	96.4	70-130	0.624	30	
1,2-Dichloropropane	928	µg/kg	41.2	1011.1	<22.4	91.8	71-130	0.922	30	
1,3,5-Trimethylbenzene	1080	µg/kg	137	1011.1	<21.4	106	66-130	3.20	30	
1,3-Dichlorobenzene (m-Dichlorobenzene)	1020	µg/kg	41.2	1011.1	<21.0	101	78-121	9.84	30	
1,3-Dichloropropene	1830	µg/kg	82.4	2022.2	<16.9	90.3	62-124	1.14	30	
1,4-Dichlorobenzene (p-Dichlorobenzene)	1020	µg/kg	41.2	1011.1	<24.7	101	78-122	7.65	30	
2-Butanone (Methyl ethyl ketone, MEK)	1100	µg/kg	275	1011.1	<72.2	109	47-164	7.45	30	
2-Hexanone	1170	µg/kg	41.2	1011.1	<15.0	116	70-137	1.96	30	
4-Methyl-2-pentanone (MIBK)	1390	µg/kg	41.2	1011.1	<28.3	138	57-200	1.02	30	
Acetone	1640	µg/kg	137	1011.1	<90.0	162	52-190	3.93	30	
Benzene	997	µg/kg	41.2	1011.1	<14.7	98.6	78-122	0.254	30	
Bromochloromethane	936	µg/kg	41.2	1011.1	<15.4	92.6	68-130	0.914	30	
Bromodichloromethane	969	µg/kg	41.2	1011.1	<17.0	95.8	75-125	0.624	30	
Bromoform	930	µg/kg	41.2	1011.1	<12.8	92.0	59-120	4.16	30	
Carbon disulfide	804	µg/kg	41.2	1011.1	<15.7	79.5	60-163	0.504	30	
Carbon tetrachloride	969	µg/kg	41.2	1011.1	<11.9	95.8	69-123	3.13	30	
Chlorobenzene	1020	µg/kg	41.2	1011.1	<10.1	101	79-120	3.89	30	
Chlorodibromomethane	978	µg/kg	41.2	1011.1	<17.0	96.7	57-123	7.68	30	
Chloroethane (Ethyl chloride)	280	µg/kg	137	1011.1	<84.9	27.7	38-132	1.08	30	S
Chloroform	956	µg/kg	41.2	1011.1	<11.1	94.5	72-122	1.06	30	
cis-1,2-Dichloroethylene	947	µg/kg	41.2	1011.1	<19.5	93.7	74-125	0.373	30	
cis-1,3-Dichloropropene	923	µg/kg	41.2	1011.1	<22.9	91.2	62-124	2.44	30	
Dichlorodifluoromethane (Freon-12)	222	µg/kg	137	1011.1	<36.7	22.0	28-137	3.48	30	S
Ethylbenzene	1070	µg/kg	41.2	1011.1	<21.5	105	75-121	2.01	30	
Isopropylbenzene	1090	µg/kg	41.2	1011.1	<19.2	108	74-121	3.35	30	
m+p-Xylene	2170	µg/kg	82.4	2022.2	<40.4	108	67-129	2.81	30	
Methyl acetate	1000	µg/kg	344	1011.1	<36.3	99.4	61-125	1.50	30	
Methyl bromide (Bromomethane)	212	µg/kg	137	1011.1	<58.0	21.0	31-169	3.39	30	S
Methyl chloride (Chloromethane)	331	µg/kg	137	1011.1	<82.9	32.7	24-119	7.78	30	
Methyl tert-butyl ether (MTBE)	884	µg/kg	41.2	1011.1	<22.1	87.4	79-139	0.911	30	
Methylene chloride (Dichloromethane)	638	µg/kg	344	1011.1	<80.5	63.0	62-135	10.5	30	
o-Xylene	1070	µg/kg	41.2	1011.1	<11.7	106	75-120	4.43	30	
Styrene	1020	µg/kg	41.2	1011.1	<12.0	101	74-126	3.27	30	
Tetrachloroethylene (Perchloroethylene)	1940	µg/kg	41.2	1011.1	<18.3	192	76-128	2.08	30	S
Toluene	1020	µg/kg	41.2	1011.1	<25.0	101	76-120	2.77	30	
Total Xylene	3250	µg/kg	124	3033.4	<11.7	107	67-129	3.34	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 17174 Orleans
Matrix: SOIL/SOLID
QC Lot: 2422019

Work Order: HN2600829
Date Collected: NA
Date Received: NA
Run ID: 3833207

MSD	CLIENT ID: 17174 SB01 (1-2')_2026 0116	Lab ID: QC-2422019-006
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/20/26 22:30

Prep Date: 01/19/26 12:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
trans-1,2-Dichloroethylene	917	µg/kg	41.2	1011.1	<25.0	90.7	72-127	1.28	30	
trans-1,3-Dichloropropylene	903	µg/kg	41.2	1011.1	<16.9	89.4	66-120	4.93	30	
Trichloroethene (Trichloroethylene)	1110	µg/kg	41.2	1011.1	<13.6	110	75-122	1.99	30	
Trichlorofluoromethane	558	µg/kg	41.2	1011.1	<15.5	55.2	51-115	1.00	30	
(Fluorotrichloromethane, Freon 11)										
Vinyl chloride (Chloroethene)	366	µg/kg	41.2	1011.1	<20.2	36.2	43-128	2.95	30	S
Surr: 1,2-Dichloroethane-d4	993	µg/kg		1011.1		98.2	80-120	1.47	30	
Surr: 4-Bromofluorobenzene	1030	µg/kg		1011.1		102	80-120	0.979	30	
Surr: Dibromofluoromethane	987	µg/kg		1011.1		97.6	72-120	0.875	30	
Surr: Toluene-d8	998	µg/kg		1011.1		98.8	80-120	2.10	30	

The following samples were analyzed in this batch: HN2600829-001, HN2600829-002, HN2600829-003