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# FILL MATERIAL SAMPLING REPORT

**5928 DUBOIS STREET  
DETROIT, WAYNE COUNTY, MICHIGAN 48211**



**DECEMBER 10, 2025**

PREPARED FOR:

**THE CITY OF DETROIT DEMOLITION DEPARTMENT**

1301 THIRD STREET, SUITE 606

DETROIT, MICHIGAN 48226



# FILL MATERIAL SAMPLING REPORT

**5928 DUBOIS STREET  
DETROIT, WAYNE COUNTY, MICHIGAN 48211**

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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 5928 Dubois 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 5928 SB01, 5928 SB02, and 5928 SB03 generally consisted of two feet of brown sand underlain by brown and gray clay to six feet below ground surface (bgs), the maximum depth explored for this investigation. Field photoionization detector (PID) readings of the recovered soil cores ranged from 0.0 to 18.4 parts per million (ppm). 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 5928 SB01 and 5928 SB03.
- Concentrations of arsenic and phenanthrene were detected in soil samples 5928 SB02 (3-4') and/or 5928 SB03 (5-6') in excess of their respective Part 201 groundwater surface water interface protection criteria (GSIPC), drinking water protection criteria (DWPC) and/or direct contact criteria (DCC).
- Concentrations of phenanthrene were detected in soil sample 5928 SB02 (3-4') in excess of its respective soil volatilization to indoor air pathway (SVIAP).
- Concentrations of 1-methylnaphthalene, 2-methylnaphthalene, acenaphthene, anthracene, barium, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, carbazole, chloride, chromium (Total), chrysene, copper, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, lead, mercury, naphthalene, phenanthrene, pyrene, selenium, total xylenes, and zinc were detected in soil samples 5928 SB01 (1-2'), 5928 SB02 (3-4'), and/or 5928 SB03 (5-6') at concentrations above laboratory method detection limits; however, detected concentrations were below their respective Part 201 GRCC and/or Statewide Default Background Levels.
- PCBs, pesticides, 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. Given that the site is residential, exceedances of direct contact criteria may merit further consideration.

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.

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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 5928 Dubois 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 November 21, 2025. 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 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 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 November 21, 2025. 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 5928 SB01, 5928 SB02, and 5928 SB03, using a direct push drill rig at the locations depicted on Figure 2. Photographs collected during 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 5928 SB01 (1-2'), 5928 SB02 (3-4'), and 5928 SB03 (5-6'), 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 November 21, 2025.

### 4.1 Site Geology and Hydrogeology

The stratigraphy encountered during soil boring advancement of 5928 SB01, 5928 SB02, and 5928 SB03 generally consisted of two feet of brown sand underlain by brown and gray clay to six feet bgs, the maximum depth explored for this investigation. Field PID readings of the recovered soil cores ranged from 0.0 to 18.4 ppm. 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 5928 SB01 and 5928 SB03.

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 5928 SB01 (1-2'), 5928 SB02 (3-4'), and/or 5928 SB03 (5-6'), 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 (µg/kg <sup>1</sup> )	Maximum Detected Concentration (µg/kg)
Arsenic	7440-38-2	5928 SB03 (5-6)	GSIPC <sup>2</sup> / 4,600 DWPC <sup>3</sup> / 4,600 DCC <sup>4</sup> / 7,600	7,850
Phenanthrene	85-01-8	5928 SB02 (3-4)	GSIPC / 2,100	2,500

<sup>1</sup>µg/kg – micrograms per kilogram;

<sup>2</sup>GSIPC – Groundwater Surface Water Interface Protection Criteria

<sup>3</sup>DWPC – Drinking Water Protection Criteria

<sup>4</sup>DCC – Direct Contact 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. Given that the site is residential, exceedances of direct contact criteria may merit further consideration.

## 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 5928 SB01, 5928 SB02, and 5928 SB03 generally consisted of two feet of brown sand underlain by brown and gray clay to six feet bgs, the maximum depth explored for this investigation. Field PID readings of the recovered soil cores ranged from 0.0 to 18.4 ppm. 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 5928 SB01 and 5928 SB03.
- Concentrations of arsenic and phenanthrene were detected in soil samples 5928 SB02 (3-4') and/or 5928 SB03 (5-6') in excess of their respective Part 201 groundwater surface water interface protection criteria (GSIPC), drinking water protection criteria (DWPC) and/or direct contact criteria (DCC).
- Concentrations of phenanthrene were detected in soil sample 5928 SB02 (3-4') in excess of its respective soil volatilization to indoor air pathway (SVIAP).
- Concentrations of 1-methylnaphthalene, 2-methylnaphthalene, acenaphthene, anthracene, barium, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, carbazole, chloride, chromium (Total), chrysene, copper, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, lead, mercury, naphthalene, phenanthrene, pyrene, selenium, total xylenes, and zinc were detected in soil samples 5928 SB01 (1-2'), 5928 SB02 (3-4'), and/or 5928 SB03 (5-6') at concentrations above laboratory method detection limits; however, detected concentrations were below their respective Part 201 GRCC and/or Statewide Default Background Levels.
- PCBs, pesticides, 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. Given that the site is residential, exceedances of direct contact criteria may merit further consideration.

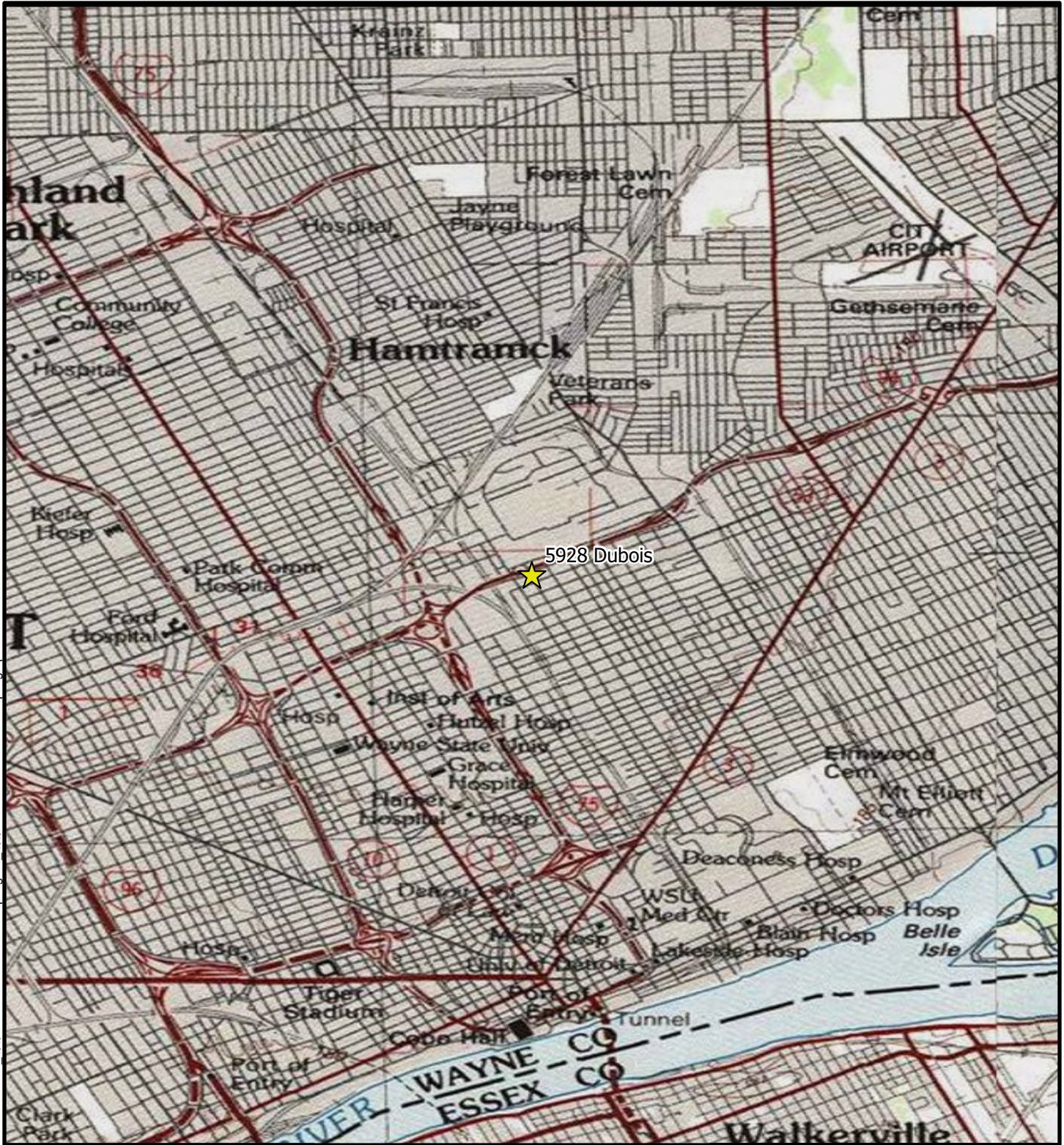
MSG has evaluated the analytical results of the fill material. Based upon the analytical results, we have determined that the material is contaminated above the state's Part 201 GRCC, as applicable.

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.

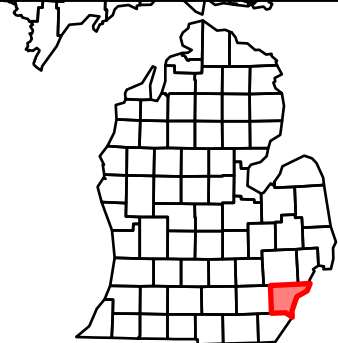
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FIGURES

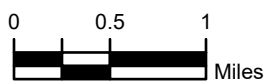




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★ Site Location

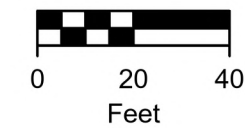


**FIGURE 1**  
SITE LOCATION

5928 Dubois, Detroit, MI

DATE 11/25/2025	DRAWN BY JWW	DESIGNED BY JWW	PROJECT NO. DETRO060
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- Sample Locations
- Subject Property
- Parcels (Current)

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



**FIGURE 2**  
Site Layout

5928 Dubois, Detroit, MI

DATE 12/16/2025	DRAWN BY JWW	DESIGNED BY KRB	PROJECT NO. DETR0060
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TABLE



**Table 1  
Soil Sample Analytical Detection Summary  
5928 Dubois  
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 Units: µg/kg			Metals							Volatile Organic Compounds (VOCs)			
			Arsenic (B)	Berium (B)	Chromium, Total (B)	Copper (B)	Lead (B)	Selenium (B)	Zinc (B)	Mercury (B)	m,p-Xylene	O-Xylene	Xylenes, Total
CAS Number	7440-38-2	7440-39-3	7440-47-3	7440-50-8	7439-92-1	7782-49-2	7440-66-6	7439-97-6	179601-23-1	95-47-6	1330-20-7		
Statewide Default Background Levels	5,800	75,000	18,000	32,000	21,000	410	47,000	130	NC	NC	NC		
Drinking Water Protection Criteria (DWPC)	4,600	1.30E+06	30,000	5.80E+06	7.00E+05	4,000	2.40E+06	1,700	NC	NC	5,600		
Groundwater Surface Water Interface Protection Criteria (GSIPC)	4,600	4.40E+05 <sup>(G)</sup>	3,300	75,000 <sup>(G)</sup>	6.00E+06 <sup>(G)</sup>	400	1.60E+05	50 <sup>(M,1,2)</sup>	NC	NC	980		
Soil Volatilization to Indoor Air Inhalation (SVIIC)	NLV	NLV	NC	NLV	NLV	NLV	NC	48,000	NC	NC	6.30E+06		
Soil Volatilization to Indoor Air Pathway (SVIAP)	NC	NC	NC	NC	NC	NC	NC	22 <sup>(M)</sup>	NC	NC	280		
Infinite Source Volatile Soil Inhalation Criteria (VSIC)	NLV	NLV	NC	NLV	NLV	NLV	NC	52,000	NC	NC	4.60E+07		
Finite Source Volatile Soil Inhalation Criteria (5 m) (VSIC 5m)	NLV	NLV	NC	NLV	NLV	NLV	NC	52,000	NC	NC	6.10E+07		
Finite Source Volatile Soil Inhalation Criteria (2 m) (VSIC 2m)	NLV	NLV	NC	NLV	NLV	NLV	NC	52,000	NC	NC	1.30E+08		
Particulate Soil Inhalation Criteria (PSIC)	7.20E+05	3.30E+08	2.60E+05	1.30E+08	1.00E+08	1.30E+08	NC	2.00E+07	NC	NC	2.90E+11		
Direct Contact Criteria (DCC)	7,600	3.70E+07	2.50E+06	2.00E+07	4.00E+05	2.60E+06	1.70E+08	1.60E+05	NC	NC	4.10E+08		
Soil Saturation Concentration Screening Levels (Csat)	NA	NA	NC	NA	NA	NA	NC	NA	NC	NC	1.50E+05		
Sample ID	Sample Depth (ft)	Sample Date											
5928 SB01	1-2	11/21/2025	<b>3,310</b>	<b>7,990</b>	<b>3,640</b>	<b>5,440</b>	<b>3,740</b>	<254	<b>18,800</b>	<13.6	<b>158</b>	<b>43.8</b>	<b>202</b>
5928 SB02	3-4	11/21/2025	<b>2,730</b>	<b>17,700</b>	<b>4,080</b>	<b>5,820</b>	<b>11,400</b>	<278	<b>27,000</b>	<14	<53.9	<15.6	<15.6
5928 SB03	5-6	11/21/2025	<b>7,850</b>	<b>39,500</b>	<b>10,800</b>	<b>10,500</b>	<b>6,240</b>	<b>365</b>	<b>31,500</b>	<b>23</b>	<49.3	<14.3	<14.3

**Notes**

µg/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.

ND= Not detected above laboratory reporting limits.

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

Notes in parentheses and standard abbreviations from Part 201 Rules 299.1

through 299.50, updated October 12, 2023.

**Table 1  
Soil Sample Analytical Detection Summary  
5928 Dubois  
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 Units: µg/kg	Semivolatile Organic Compounds (SVOCs)																		Inorganic Anions/Ions	Polychlorinated Biphenyls (PCBs)	Pesticides/Herbicides		
	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Anthracene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Carbazole	Chrysene	Dibenzo(A,H)Anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-Cd)Pyrene	Naphthalene	Phenanthrene	Pyrene	Chloride				
CAS Number	90-12-0	91-57-6	83-32-9	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	86-74-8	218-01-9	53-70-3	206-44-0	86-73-7	193-39-5	91-20-3	85-01-8	129-00-0	16887006				
Statewide Default Background Levels	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NA			
Drinking Water Protection Criteria (DWPC)	NC	57,000	3.00E+05	41,000	NLL	NLL	NLL	NLL	NLL	9,400	NLL	NLL	7.30E+05	3.90E+05	NLL	35,000	56,000	4.80E+05	5.00E+06				
Groundwater Surface Water Interface Protection Criteria (GSIPC)	NC	4,200	8,700	ID	NLL	NLL	NLL	NLL	NLL	1,100	NLL	NLL	5,500	5,300	NLL	730	2,100	ID	(X)				
Soil Volatilization to Indoor Air Inhalation (SVIIC)	NC	2.70E+06	1.90E+08	1.00E+09	NLV	NLV	ID	NLV	NLV	NLV	ID	NLV	1.00E+09	5.80E+08	NLV	2.50E+05	2.80E+06	1.00E+09	NLV				
Soil Volatilization to Indoor Air Pathway (SVIAP)	NC	1,700	2.00E+05	1.30E+07	1.60E+05 <sup>(M)</sup>	NC	NC	NC	NC	NC	NC	NC	NC	4.70E+05	NC	67 <sup>(M)</sup>	1,700	2.50E+07	--				
Infinite Source Volatile Soil Inhalation Criteria (VSIC)	NC	1.50E+06	8.10E+07	1.40E+09	NLV	NLV	ID	NLV	NLV	NLV	ID	NLV	7.40E+08	1.30E+08	NLV	3.00E+05	1.60E+05	6.50E+08	NLV				
Finite Source Volatile Soil Inhalation Criteria (5 m) (VSIC 5m)	NC	1.50E+06	8.10E+07	1.40E+09	NLV	NLV	ID	NLV	NLV	NLV	ID	NLV	7.40E+08	1.30E+08	NLV	3.00E+05	1.60E+05	6.50E+08	NLV				
Finite Source Volatile Soil Inhalation Criteria (2 m) (VSIC 2m)	NC	1.50E+06	8.10E+07	1.40E+09	NLV	NLV	ID	NLV	NLV	NLV	ID	NLV	7.40E+08	1.30E+08	NLV	3.00E+05	1.60E+05	6.50E+08	NLV				
Particulate Soil Inhalation Criteria (PSIC)	NC	6.70E+08	1.40E+10	6.70E+10	ID	1.50E+06	ID	8.00E+08	ID	6.20E+07	ID	ID	9.30E+09	9.30E+09	ID	2.00E+08	6.70E+06	6.70E+09	ID				
Direct Contact Criteria (DCC)	NC	8.10E+06	4.10E+07	2.30E+08	20,000	2,000	20,000	2.50E+06	2.00E+05	5.30E+05	2.00E+06	2,000	4.60E+07	2.70E+07	20,000	1.60E+07	1.60E+06	2.90E+07	5.0E+5 (F)				
Soil Saturation Concentration Screening Levels (C <sub>sat</sub> )	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
Sample ID	Sample Depth (ft)	Sample Date																					
5928 SB01	1-2	11/21/2025	<11.8	<8.36	<b>34.5</b>	<b>102</b>	<b>330</b>	<b>304</b>	<b>375</b>	<b>174</b>	<b>125</b>	<24.2	<b>293</b>	<8.87	<b>708</b>	<b>26.3</b>	<b>200</b>	<b>16.4</b>	<b>440</b>	<b>646</b>	<3,280	ND	ND
5928 SB02	3-4	11/21/2025	<b>24.3</b>	<b>22.5</b>	<b>202</b>	<b>687</b>	<b>2,120</b>	<b>1,800</b>	<b>2,420</b>	<b>1,050</b>	<b>858</b>	<b>144</b>	<b>1,860</b>	<b>271</b>	<b>4,460</b>	<b>198</b>	<b>1,180</b>	<b>28.1</b>	<b>2,500</b>	<b>4,060</b>	<3,340	ND	ND
5928 SB03	5-6	11/21/2025	<12.7	<8.99	<12.8	<12.5	<15.3	<10.8	<13.2	<13.6	<13.4	<26	<14.3	<9.55	<8.49	<12.8	<12.3	<11.3	<8.22	<8.82	<b>79,700</b>	ND	ND

**Notes**

µg/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 C<sub>sat</sub>, likely exceeds others.

**Bold** indicates concentration above laboratory reporting limits.

ND= Not detected above laboratory reporting limits.

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

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 will 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

<b>Date:</b> <u>11/21/2025</u>	<b>Day:</b> <u>Friday</u>	<b>Temp:</b> <u>N/A</u> (AM) <u>50° F</u> (PM)
<b>MSG Personnel:</b> <u>SRK, MC, BM</u>	<b>Cloud Cover:</b> <u>N/A</u> (AM) <u>80%</u> (PM)	<b>Precip.:</b> <u>N/A</u> (AM) <u>N/A</u> (PM)
<b>Personnel:</b> <u>MSG</u>		
<b>MSG Hours On-Site:</b> <u>~ 1 hour</u>		

Contractors Information		
Contractor: <u>MSG</u>	No. Men and Type: <u>3; Geologist/Helper/Operator</u>	Equipment Type: <u>Geoprobe 7822DT</u>

Summary of Work Performed:
<ul style="list-style-type: none"> <li>Advanced three (3) onsite soil borings to a maximum depth of 6 feet below ground surface (bgs)</li> <li>Collected soil samples from each soil boring (from the interval with the greatest potential to be impacted based on field indicators).</li> </ul>

Field Notes:
<ul style="list-style-type: none"> <li>1330 – MSG (SRK, MC, BM) onsite (5928 Dubois Street)</li> <li>1332 – Located site and marked boring locations</li> <li>1339 – Began drilling SB01</li> <li>1341 – Finished drilling SB01</li> <li>1345 – Began drilling SB02</li> <li>1347 – Finished drilling SB02</li> <li>1348 – Sampled 5928 SB01 (1-2')</li> <li>1349 – Began drilling SB03</li> <li>1351 – Finished drilling SB03</li> <li>1353 – Sampled 5928 SB01 (1-2')</li> <li>1405 – Sampled 5928 SB02 (3-4')</li> <li>1410 – Sampled 5928 SB02 (3-4')</li> <li>1420 – Sampled 5928 SB03 (5-6')</li> <li>1425 – Sampled 5928 SB03 (5-6')</li> <li>1430 – Collected GPS points</li> <li>1437 – MSG off site</li> </ul>

Supporting Documentation								
Photograph Taken	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Samples Collected	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Boring/MW Logs	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Photo Log Attached	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	COC Attached	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Field Note Book Taken	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Problem Identification and Corrective Measures
<u>N/A</u>
Resolved? Yes <input type="checkbox"/> No <input type="checkbox"/>

**APPENDIX C**  
INVESTIGATION PHOTOGRAPHS





Photo 1: Viewing Site Pre-Drilling, Facing Northeast.



Photo 2: Viewing 5928 SB01 Drilling, Facing Northeast.



Photo 3: Viewing 5928 SB01 Soils, Facing Northeast.



Photo 4: Viewing 5928 SB02 Drilling, Facing Northeast.



Photo 5: Viewing 5928 SB02 Soils, Facing Northeast.



Photo 6: Viewing 5928 SB03 Drilling, Facing Northeast.



Photo 7: Viewing 5928 SB03 Soils, Facing Northeast.



Photo 8: Viewing Site Post-Drilling, Facing Northeast.

**APPENDIX D**  
SOIL BORING LOGS





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 SB01**

Sheet 1 of 1

**CLIENT** City of Detroit  
**PROJECT NUMBER** DETR0060\_5928 Dubois  
**DATE STARTED** 11-21-2025 **COMPLETED** 11-21-2025  
**DRILLING CONTRACTOR** MSG  
**DRILLING METHOD** Direct Push  
**EQUIPMENT** Geoprobe 7822DT **Operator** BM

**PROJECT NAME** Backfill Soil Sampling  
**PROJECT LOCATION** 5928 Dubois, Detroit, MI  
**POSITION** \_\_\_\_\_  
**SURFACE ELEVATION** \_\_\_\_\_ **FINAL DEPTH** 6.0 ft  
**LOGGED BY** SRK **CHECKED BY** PDH  
**REMARKS** Additional sample collected for analysis if needed

DEPTH (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
0	ES	67		Brown SAND, trace gravel, trace clay, dry	18.4	- Collected Soil Sample 5928 SB01 (1-2) at 13:48
2.0				Brown and Gray CLAY, trace gravel, concrete debris, moist	9.6	
3.5				- Becomes dry at 3.5 ft bgs	1.2	
5.0					1.2	
6.0				Terminated at 6.00 ft.	0.3	
10					0.1	

DRAFT

**LEGEND:**

- ▽ AT TIME OF DRILLING \_\_\_\_\_
- ▼ AT END OF DRILLING \_\_\_\_\_
- ▽ AFTER DRILLING \_\_\_\_\_



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**BOREHOLE NUMBER SB02**

Sheet 1 of 1

**CLIENT** City of Detroit  
**PROJECT NUMBER** DETR0060\_5928 Dubois  
**DATE STARTED** 11-21-2025 **COMPLETED** 11-21-2025  
**DRILLING CONTRACTOR** MSG  
**DRILLING METHOD** Direct Push  
**EQUIPMENT** Geoprobe 7822DT **Operator** BM

**PROJECT NAME** Backfill Soil Sampling  
**PROJECT LOCATION** 5928 Dubois, Detroit, MI  
**POSITION** \_\_\_\_\_  
**SURFACE ELEVATION** \_\_\_\_\_ **FINAL DEPTH** 6.0 ft  
**LOGGED BY** SRK **CHECKED BY** PDH  
**REMARKS** Additional sample collected for analysis if needed

DEPTH (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
0	ES	42		Brown SAND, little gravel, dry	0.0	- Collected Soil Sample 5928 SB02 (3-4') at 14:05
3.0				Gray and Brown CLAY, little sand, little gravel, moist	0.0	
5				- Becomes dry at 5 ft bgs	0.0	
6.0				Terminated at 6.00 ft.	0.0	
10						
15						
20						
25						

DRAFT

**LEGEND:**

- ▽ AT TIME OF DRILLING \_\_\_\_\_
- ▼ AT END OF DRILLING \_\_\_\_\_
- ▽ AFTER DRILLING \_\_\_\_\_



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**BOREHOLE NUMBER SB03**

Sheet 1 of 1

**CLIENT** City of Detroit  
**PROJECT NUMBER** DETR0060\_5928 Dubois  
**DATE STARTED** 11-21-2025 **COMPLETED** 11-21-2025  
**DRILLING CONTRACTOR** MSG  
**DRILLING METHOD** Direct Push  
**EQUIPMENT** Geoprobe 7822DT **Operator** BM

**PROJECT NAME** Backfill Soil Sampling  
**PROJECT LOCATION** 5928 Dubois, Detroit, MI  
**POSITION** \_\_\_\_\_  
**SURFACE ELEVATION** \_\_\_\_\_ **FINAL DEPTH** 6.0 ft  
**LOGGED BY** SRK **CHECKED BY** PDH  
**REMARKS** Additional sample collected for analysis if needed

DEPTH (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
5	ES	75		0.8 Brown SAND, little gravel		
				Dark Brown to Brown CLAY, some sand little gravel, moist	0.0	
				2.0 Brown and Gray CLAY, little gravel, trace sand, dry	0.0	
				- Some concrete debris at 4 ft bgs	0.0	
				- Becomes moist at 5 ft bgs - Becomes dry at 5.5 ft bgs	0.0	- Collected Soil Sample 5928 SB03 (5-6') at 14:20
				Terminated at 6.00 ft.		
10						
15						
20						
25						

DRAFT

**LEGEND:**

- ▽ AT TIME OF DRILLING \_\_\_\_\_
- ▼ AT END OF DRILLING \_\_\_\_\_
- ▽ AFTER DRILLING \_\_\_\_\_

**APPENDIX E**  
LABORATORY ANALYTICAL REPORTS AND CHAIN OF CUSTODY FORMS





right solutions.  
right partner.

December 03, 2025

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

Re: **5928 Dubois**

Date Received: **11/22/2025**

Work Order: **HN2517794**

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:** 5928 Dubois

**Work Order:** HN2517794  
**Date Received:** 22-Nov-2025

### 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 22-Nov-2025. 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.

#### Organics

##### EPA 8270E-FULL HN-3546-S

###### Run ID: 3720536

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:  
Aniline, 4-Chloroaniline, 2-Nitroaniline.

The Continuing Calibration Verification did not meet acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: Bis(2-chloroethyl)ether.

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

###### Run ID: 3732201

The Continuing Calibration Verification did not meet acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: Chloroethane (Ethyl chloride), Methyl bromide (Bromomethane)

# 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: 5928 SB01 (1-2)** **Lab ID: HN2517794-001**

Analyte	Results	Flag	MRL	Units	Method
Acenaphthene	34.5		16.4	µg/kg	EPA 8270E
Anthracene	102		16.4	µg/kg	EPA 8270E
Arsenic	3.31		0.276	mg/kg	EPA 6020B
Barium	7.99		0.276	mg/kg	EPA 6020B
Benzo(a)anthracene	330		16.4	µg/kg	EPA 8270E
Benzo(a)pyrene	304		16.4	µg/kg	EPA 8270E
Benzo(b)fluoranthene	375		16.4	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	174		16.4	µg/kg	EPA 8270E
Benzo(k)fluoranthene	125		16.4	µg/kg	EPA 8270E
Chromium	3.64		0.276	mg/kg	EPA 6020B
Chrysene	293		16.4	µg/kg	EPA 8270E
Copper	5.44		0.276	mg/kg	EPA 6020B
Fluoranthene	708		16.4	µg/kg	EPA 8270E
Fluorene	26.3		16.4	µg/kg	EPA 8270E
Indeno(1,2,3-cd) pyrene	200		16.4	µg/kg	EPA 8270E
Lead	3.74		0.276	mg/kg	EPA 6020B
m+p-Xylene	158		67.4	µg/kg	EPA 8260D
Naphthalene	16.4		16.4	µg/kg	EPA 8270E
o-Xylene	43.8		33.7	µg/kg	EPA 8260D
Percent Moisture	5.8		0.1	%	EPA 3550C
Phenanthrene	440		16.4	µg/kg	EPA 8270E
Pyrene	646		16.4	µg/kg	EPA 8270E
Total Xylene	202		101	µg/kg	EPA 8260D
Zinc	18.8		0.551	mg/kg	EPA 6020B

**CLIENT ID: 5928 SB02 (3-4)** **Lab ID: HN2517794-003**

Analyte	Results	Flag	MRL	Units	Method
1-Methylnaphthalene	24.3		18.7	µg/kg	EPA 8270E
2-Methylnaphthalene	22.5		18.7	µg/kg	EPA 8270E
Acenaphthene	202		18.7	µg/kg	EPA 8270E
Anthracene	687		18.7	µg/kg	EPA 8270E
Arsenic	2.73		0.302	mg/kg	EPA 6020B
Barium	17.7		0.302	mg/kg	EPA 6020B
Benzo(a)anthracene	2120		18.7	µg/kg	EPA 8270E
Benzo(a)pyrene	1800		18.7	µg/kg	EPA 8270E
Benzo(b)fluoranthene	2420		18.7	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	1050		18.7	µg/kg	EPA 8270E
Benzo(k)fluoranthene	858		18.7	µg/kg	EPA 8270E
Carbazole	144		92.7	µg/kg	EPA 8270E
Chromium	4.08		0.302	mg/kg	EPA 6020B
Chrysene	1860		18.7	µg/kg	EPA 8270E

## 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: 5928 SB02 (3-4)**

**Lab ID: HN2517794-003**

Analyte	Results	Flag	MRL	Units	Method
Copper	5.82		0.302	mg/kg	EPA 6020B
Dibenz(a,h) anthracene	271		92.7	µg/kg	EPA 8270E
Fluoranthene	4460		18.7	µg/kg	EPA 8270E
Fluorene	198		18.7	µg/kg	EPA 8270E
Indeno(1,2,3-cd) pyrene	1180		18.7	µg/kg	EPA 8270E
Lead	11.4		0.302	mg/kg	EPA 6020B
Naphthalene	28.1		18.7	µg/kg	EPA 8270E
Percent Moisture	14.5		0.1	%	EPA 3550C
Phenanthrene	2500		18.7	µg/kg	EPA 8270E
Pyrene	4060		18.7	µg/kg	EPA 8270E
Zinc	27.0		0.604	mg/kg	EPA 6020B

**CLIENT ID: 5928 SB03 (5-6)**

**Lab ID: HN2517794-005**

Analyte	Results	Flag	MRL	Units	Method
Arsenic	7.85		0.331	mg/kg	EPA 6020B
Barium	39.5		0.331	mg/kg	EPA 6020B
Chloride	79.7		11.1	mg/kg	EPA 9056A
Chromium	10.8		0.331	mg/kg	EPA 6020B
Copper	10.5		0.331	mg/kg	EPA 6020B
Lead	6.24		0.331	mg/kg	EPA 6020B
Mercury	0.0230		0.0220	mg/kg	EPA 7471B
Percent Moisture	11.2		0.1	%	EPA 3550C
Selenium	0.365		0.331	mg/kg	EPA 6020B
Zinc	31.5		0.661	mg/kg	EPA 6020B

# SAMPLE SUMMARY



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Workorder:** HN2517794

<b>Laboratory Sample ID</b>	<b>Client Sample ID</b>	<b>Sample Matrix</b>	<b>Collection Date</b>	<b>Date Received</b>
HN2517794-001	5928 SB01 (1-2)	SOIL/SOLID	11/21/25 13:48	11/22/25 08:00
HN2517794-003	5928 SB02 (3-4)	SOIL/SOLID	11/21/25 14:05	11/22/25 08:00
HN2517794-005	5928 SB03 (5-6)	SOIL/SOLID	11/21/25 14:20	11/22/25 08:00



ALS Environmental

# Chain of Custody Form

Laboratory location: \_\_\_\_\_

Page 1 of 1

ALS Project Manager: \_\_\_\_\_ Work Order #: \_\_\_\_\_

Customer Information		Project Information				Parameter/Method Request for Analysis										
Purchase Order		Project Name	5928 Dubois			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	The Mannik and Smith Group	Bill To Company	The Mannik and Smith Group			C	PCBs (U.S. EPA Method 8082)									
Send Report To	Ryan Montri	Invoice Attn.				D	Mi 10 Metals (U.S. EPA 6000/7000 Series Methods)									
Address	2365 Haggerty Rd South Suite 100	Address	2365 Haggerty Rd South Suite 100			E	Chorides (U.S. EPA Method 9056A)									
						F	Pesticides (U.S. EPA Method 8081B (or Method 8081))									
City/State/Zip	Canton, MI 48188	City/State/Zip	Canton, MI 48188			G	Herbicides (U.S. EPA Method 8151A (or Method 8151))									
Phone	734-397-3100	Phone	734-397-3100			H										
Fax		Fax				I										
e-Mail Address	RMontri@manksmithgroup.com	e-Mail Address	OMitchell@manksmithgroup.com			J										

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	5928 SB01 (1-2)	11/21/25	13:48	Soil	7	4	✓	✓	✓	✓	✓	✓	✓				
2	5928 SB01 (1-2)		13:53	Soil	7	4											✓
3	5928 SB02 (3-4)		14:05	Soil	7	4	✓	✓	✓	✓	✓	✓	✓				
4	5928 SB02 (3-4)		14:10	Soil	7	4											✓
5	5928 SB03 (5-6)		14:20	Soil	7	4	✓	✓	✓	✓	✓	✓	✓				
6	5928 SB03 (5-6)	11/21/25	14:25	Soil	7	4											✓
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign *Shannon Maczmarek* Shipment Method: \_\_\_\_\_ Required Turnaround Time:  Other 3 wk days Results Due Date: \_\_\_\_\_  
 STD 10 Wk Days  5 Wk Days  2 Wk Days  24 Hour

Relinquished by: *Shannon Maczmarek* Date: 11/21/25 Time: 16:25 Received by: *Colin*  
Relinquished by: *Colin* Date: 11/21/25 Time: 17:00 Received by (Laboratory): *QS*  
Logged by (Laboratory): *AB* Date: 11/22/25 Time: 14:08 Checked by (Laboratory): \_\_\_\_\_

Notes: \_\_\_\_\_ Quote# HN-061825-M&S-MA  
Cooler Temp. 1.3c  
QC Package: (Check Box Below)  
 Level II: Standard QC  
 Level III: Std QC + Raw Data  
 Level IV: SW846 CLP-Like

Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035 Other: \_\_\_\_\_

Environmental Division  
Holland  
Work Order Reference  
**HN2517794**



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 128<sup>th</sup> Ave., Holland MI 49424

ALS Holland Sample Receiving Checklist

Received by: Christina B  
 Date/Time: 11/22/25 0800  
 Carrier Name: QS  
 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): 1.3c / 1.3c  
 Thermometer(s): 1R6  
 Sample(s) received on ice? (Yes) / No  
 Matrix/Matrices: soil  
 Cooler(s)/Kit(s): -  
 Date/Time sample(s) sent to storage: 11/22/25 1408  
 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:

## 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 Certifications<sup>1</sup>

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

<sup>1</sup> - Scope available upon request

# ANALYST SUMMARY



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois

**Work Order:** HN2517794

**Sample Name:** 5928 SB01 (1-2)  
**Laboratory Code:** HN2517794-001  
**Sample Matrix:** SOIL/SOLID

**Date Collected:** 11/21/25  
**Date Received:** 11/22/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		001-AB	2352277		3713526	Nicole Maleski
EPA 6020B	EPA 3050B	001-AA	2352166	Weston Kotecki	3718901	Hunter Johnson
EPA 7471B	Method	001-AA	2352820	Maxx Richey	3716896	Maxx Richey
EPA 8081B	EPA 3546	001-AB	2352162	Mya Harmer	3716736	Sam Bruzan
EPA 8082A	EPA 3546	001-AA	2352157	Mya Harmer	3717329	Sam Bruzan
EPA 8151A	Method	001-AB	2354016	Rachel Plantinga	3727376	Kathy Malmyga
EPA 8260D	EPA 5035A	001-AC	2352429	Jonathan Vazquez	3732201	John Garvale
EPA 8270E	EPA 3546	001-AA	2352167	Mya Harmer	3720536	Sam Bruzan
EPA 9056A	EPA 9056A	001-AA	2352301	Sage Hansen	3717190	Jessica Bacon

**Sample Name:** 5928 SB02 (3-4)  
**Laboratory Code:** HN2517794-003  
**Sample Matrix:** SOIL/SOLID

**Date Collected:** 11/21/25  
**Date Received:** 11/22/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		003-AB	2352277		3713526	Nicole Maleski
EPA 6020B	EPA 3050B	003-AA	2352166	Weston Kotecki	3718901	Hunter Johnson
EPA 7471B	Method	003-AA	2352820	Maxx Richey	3716896	Maxx Richey
EPA 8081B	EPA 3546	003-AB	2352162	Mya Harmer	3716736	Sam Bruzan
EPA 8082A	EPA 3546	003-AA	2352157	Mya Harmer	3717329	Sam Bruzan
EPA 8151A	Method	003-AB	2354016	Rachel Plantinga	3727376	Kathy Malmyga
EPA 8260D	EPA 5035A	003-AC	2352429	Jonathan Vazquez	3732201	John Garvale
EPA 8270E	EPA 3546	003-AA	2352167	Mya Harmer	3720536	Sam Bruzan
EPA 9056A	EPA 9056A	003-AA	2352301	Sage Hansen	3717190	Jessica Bacon

**Sample Name:** 5928 SB03 (5-6)  
**Laboratory Code:** HN2517794-005  
**Sample Matrix:** SOIL/SOLID

**Date Collected:** 11/21/25  
**Date Received:** 11/22/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		005-AB	2352277		3713526	Nicole Maleski

# ANALYST SUMMARY



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois

**Work Order:** HN2517794

**Sample Name:** 5928 SB03 (5-6)  
**Laboratory Code:** HN2517794-005  
**Sample Matrix:** SOIL/SOLID

**Date Collected:** 11/21/25  
**Date Received:** 11/22/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 6020B	EPA 3050B	005-AA	2352166	Weston Kotecki	3718901	Hunter Johnson
EPA 7471B	Method	005-AA	2352820	Maxx Richey	3716896	Maxx Richey
EPA 8081B	EPA 3546	005-AB	2352162	Mya Harmer	3716736	Sam Bruzan
EPA 8082A	EPA 3546	005-AA	2352157	Mya Harmer	3717329	Sam Bruzan
EPA 8151A	Method	005-AB	2354016	Rachel Plantinga	3727376	Kathy Malmyga
EPA 8260D	EPA 5035A	005-AC	2352429	Jonathan Vazquez	3732201	John Garvale
EPA 8270E	EPA 3546	005-AA	2352167	Mya Harmer	3720536	Sam Bruzan
EPA 9056A	EPA 9056A	005-AA	2352301	Sage Hansen	3717190	Jessica Bacon

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 13:48  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB01 (1-2)** **Lab ID: HN2517794-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<b>Chlorinated Herbicides by GC/ECD</b>								
2,4,5-T	EPA 8151A	<0.972	U	µg/kg	5.28	1	11/29/25 13:11	11/25/25 09:29
2,4,5-TP (Silvex)	EPA 8151A	<1.73	U	µg/kg	5.28	1	11/29/25 13:11	11/25/25 09:29
2,4-D	EPA 8151A	<2.82	U	µg/kg	10.6	1	11/29/25 13:11	11/25/25 09:29
<i>Surr: DCAA</i>	<i>EPA 8151A</i>	<b>60.0</b>		<i>%REC</i>	<i>10-116</i>	<i>1</i>	<i>11/29/25 13:11</i>	<i>11/25/25 09:29</i>
<b>General Chemistry Parameters</b>								
Percent Moisture	EPA 3550C	<b>5.8</b>		%	0.1	1	11/24/25 14:39	NA
Chloride	EPA 9056A	<3.28	U	mg/kg	10.6	1	11/24/25 22:10	11/24/25 13:15
<b>Metals</b>								
Arsenic	EPA 6020B	<b>3.31</b>		mg/kg	0.276	1	11/26/25 06:27	11/24/25 09:56
Barium	EPA 6020B	<b>7.99</b>		mg/kg	0.276	1	11/26/25 06:27	11/24/25 09:56
Cadmium	EPA 6020B	<0.0165	U	mg/kg	0.110	1	11/26/25 06:27	11/24/25 09:56
Chromium	EPA 6020B	<b>3.64</b>		mg/kg	0.276	1	11/26/25 06:27	11/24/25 09:56
Copper	EPA 6020B	<b>5.44</b>		mg/kg	0.276	1	11/26/25 06:27	11/24/25 09:56
Lead	EPA 6020B	<b>3.74</b>		mg/kg	0.276	1	11/26/25 06:27	11/24/25 09:56
Selenium	EPA 6020B	<0.254	U	mg/kg	0.276	1	11/26/25 06:27	11/24/25 09:56
Silver	EPA 6020B	<0.0364	U	mg/kg	0.276	1	11/26/25 06:27	11/24/25 09:56
Zinc	EPA 6020B	<b>18.8</b>		mg/kg	0.551	1	11/26/25 06:27	11/24/25 09:56
Mercury	EPA 7471B	<0.0136	U	mg/kg	0.0200	1	11/25/25 17:22	11/25/25 08:38
<b>Organochlorine Pesticides by GC/ECD</b>								
4,4'-DDD	EPA 8081B	<16.2	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
4,4'-DDE	EPA 8081B	<16.7	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
4,4'-DDT	EPA 8081B	<16.8	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
Aldrin	EPA 8081B	<16.4	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
alpha-BHC	EPA 8081B	<16.6	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
beta-BHC	EPA 8081B	<16.6	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
Chlordane, Technical	EPA 8081B	<25.1	U	µg/kg	63.2	1	11/24/25 23:47	11/24/25 11:02
cis-Chlordane	EPA 8081B	<16.9	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
delta-BHC	EPA 8081B	<16.6	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
Dieldrin	EPA 8081B	<17.7	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 13:48  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB01 (1-2)**

**Lab ID: HN2517794-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Endosulfan I	EPA 8081B	<17.0	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
Endosulfan II	EPA 8081B	<16.7	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
Endosulfan sulfate	EPA 8081B	<15.6	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
Endrin	EPA 8081B	<20.5	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
Endrin aldehyde	EPA 8081B	<16.0	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
Endrin ketone	EPA 8081B	<15.4	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
gamma-BHC (Lindane)	EPA 8081B	<16.6	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
Heptachlor	EPA 8081B	<16.3	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
Heptachlor epoxide	EPA 8081B	<16.7	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
Methoxychlor	EPA 8081B	<16.9	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
Toxaphene	EPA 8081B	<27.3	U	µg/kg	152	1	11/24/25 23:47	11/24/25 11:02
trans-Chlordane	EPA 8081B	<16.8	U	µg/kg	25.3	1	11/24/25 23:47	11/24/25 11:02
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	<b>130</b>		<i>%REC</i>	<i>53-151</i>	<i>1</i>	<i>11/24/25 23:47</i>	<i>11/24/25 11:02</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	<b>106</b>		<i>%REC</i>	<i>67-127</i>	<i>1</i>	<i>11/24/25 23:47</i>	<i>11/24/25 11:02</i>

### Polychlorinated Biphenyls (PCBs) by GC/ECD

Aroclor 1016	EPA 8082A	<57.8	U	µg/kg	169	1	11/24/25 20:37	11/24/25 10:45
Aroclor 1221	EPA 8082A	<57.8	U	µg/kg	169	1	11/24/25 20:37	11/24/25 10:45
Aroclor 1232	EPA 8082A	<57.8	U	µg/kg	169	1	11/24/25 20:37	11/24/25 10:45
Aroclor 1242	EPA 8082A	<57.8	U	µg/kg	169	1	11/24/25 20:37	11/24/25 10:45
Aroclor 1248	EPA 8082A	<57.8	U	µg/kg	169	1	11/24/25 20:37	11/24/25 10:45
Aroclor 1254	EPA 8082A	<47.1	U	µg/kg	169	1	11/24/25 20:37	11/24/25 10:45
Aroclor 1260	EPA 8082A	<47.1	U	µg/kg	169	1	11/24/25 20:37	11/24/25 10:45
Aroclor 1262	EPA 8082A	<47.1	U	µg/kg	169	1	11/24/25 20:37	11/24/25 10:45
Aroclor 1268	EPA 8082A	<47.1	U	µg/kg	169	1	11/24/25 20:37	11/24/25 10:45
Total PCB	EPA 8082A	<47.1	U	µg/kg	169	1	11/24/25 20:37	11/24/25 10:45
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	<b>121</b>		<i>%REC</i>	<i>54-146</i>	<i>1</i>	<i>11/24/25 20:37</i>	<i>11/24/25 10:45</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	<b>106</b>		<i>%REC</i>	<i>58-140</i>	<i>1</i>	<i>11/24/25 20:37</i>	<i>11/24/25 10:45</i>

### Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	<13.3	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
1,2,4,5-Tetrachlorobenzene	EPA 8270E	<18.9	U	µg/kg	821	1	11/26/25 02:03	11/24/25 11:29

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 13:48  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB01 (1-2)**

**Lab ID: HN2517794-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	<58.9	U	µg/kg	411	1	11/26/25 02:03	11/24/25 11:29
1-Methylnaphthalene	EPA 8270E	<11.8	U	µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	EPA 8270E	<19.3	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
2,3,4,6-Tetrachlorophenol	EPA 8270E	<60.2	U	µg/kg	164	1	11/26/25 02:03	11/24/25 11:29
2,4,5-Trichlorophenol	EPA 8270E	<48.7	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
2,4,6-Trichlorophenol	EPA 8270E	<21.9	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
2,4-Dichlorophenol	EPA 8270E	<44.2	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
2,4-Dimethylphenol	EPA 8270E	<42.2	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
2,4-Dinitrophenol	EPA 8270E	<601	U	µg/kg	821	1	11/26/25 02:03	11/24/25 11:29
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	<53.4	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	<21.0	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
2-Chloronaphthalene	EPA 8270E	<11.5	U	µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
2-Chlorophenol	EPA 8270E	<53.8	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	<68.6	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
2-Methylnaphthalene	EPA 8270E	<8.36	U	µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
2-Methylphenol (o-Cresol)	EPA 8270E	<22.2	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
2-Nitroaniline	EPA 8270E	<45.6	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
2-Nitrophenol	EPA 8270E	<23.4	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
3&4-Methylphenol	EPA 8270E	<44.8	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
3,3'-Dichlorobenzidine	EPA 8270E	<38.4	U	µg/kg	411	1	11/26/25 02:03	11/24/25 11:29
3-Nitroaniline	EPA 8270E	<47.7	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	<45.0	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
4-Chloro-3-methylphenol	EPA 8270E	<23.4	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
4-Chloroaniline	EPA 8270E	<41.8	U	µg/kg	164	1	11/26/25 02:03	11/24/25 11:29
4-Chlorophenyl phenylether	EPA 8270E	<22.7	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
4-Nitroaniline	EPA 8270E	<127	U	µg/kg	411	1	11/26/25 02:03	11/24/25 11:29
4-Nitrophenol	EPA 8270E	<192	U	µg/kg	821	1	11/26/25 02:03	11/24/25 11:29
Acenaphthene	EPA 8270E	<b>34.5</b>		µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 13:48  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB01 (1-2)**

**Lab ID: HN2517794-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution	Date	Date
						Factor	Analyzed	Extracted
Acenaphthylene	EPA 8270E	<14.2	U	µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
Acetophenone	EPA 8270E	<12.9	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Anthracene	EPA 8270E	<b>102</b>		µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
Atrazine	EPA 8270E	<48.1	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Benzaldehyde	EPA 8270E	<126	U	µg/kg	164	1	11/26/25 02:03	11/24/25 11:29
Benzo(a)anthracene	EPA 8270E	<b>330</b>		µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
Benzo(a)pyrene	EPA 8270E	<b>304</b>		µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
Benzo(b)fluoranthene	EPA 8270E	<b>375</b>		µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
Benzo(g,h,i)perylene	EPA 8270E	<b>174</b>		µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
Benzo(k)fluoranthene	EPA 8270E	<b>125</b>		µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
bis(2-Chloroethoxy) methane	EPA 8270E	<52.0	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
bis(2-Chloroethyl) ether	EPA 8270E	<23.3	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Butyl benzyl phthalate	EPA 8270E	<103	U	µg/kg	164	1	11/26/25 02:03	11/24/25 11:29
Caprolactam	EPA 8270E	<74.1	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Carbazole	EPA 8270E	<24.2	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Chrysene	EPA 8270E	<b>293</b>		µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	EPA 8270E	<68.0	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Dibenz(a,h) anthracene	EPA 8270E	<8.87	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Dibenzofuran	EPA 8270E	<12.1	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Diethyl phthalate	EPA 8270E	<28.0	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Dimethyl phthalate	EPA 8270E	<16.0	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Fluoranthene	EPA 8270E	<b>708</b>		µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
Fluorene	EPA 8270E	<b>26.3</b>		µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
Hexachlorobenzene	EPA 8270E	<23.9	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Hexachlorobutadiene	EPA 8270E	<19.4	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Hexachlorocyclopentadiene	EPA 8270E	<77.9	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Hexachloroethane	EPA 8270E	<34.0	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Indeno(1,2,3-cd) pyrene	EPA 8270E	<b>200</b>		µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
Isophorone	EPA 8270E	<16.0	U	µg/kg	411	1	11/26/25 02:03	11/24/25 11:29
Methylphenol, Total	EPA 8270E	<22.2	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 13:48  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB01 (1-2)**

**Lab ID: HN2517794-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Naphthalene	EPA 8270E	16.4		µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
Nitrobenzene	EPA 8270E	<27.6	U	µg/kg	411	1	11/26/25 02:03	11/24/25 11:29
n-Nitrosodi-n-propylamine	EPA 8270E	<13.6	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
N-Nitrosodiphenylamine	EPA 8270E	<47.6	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Pentachlorophenol	EPA 8270E	<65.3	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Phenanthrene	EPA 8270E	440		µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
Phenol	EPA 8270E	<41.3	U	µg/kg	81.3	1	11/26/25 02:03	11/24/25 11:29
Pyrene	EPA 8270E	646		µg/kg	16.4	1	11/26/25 02:03	11/24/25 11:29
Pyridine	EPA 8270E	<162	U	µg/kg	411	1	11/26/25 02:03	11/24/25 11:29
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	<i>76.2</i>		<i>%REC</i>	<i>48-94</i>	<i>1</i>	<i>11/26/25 02:03</i>	<i>11/24/25 11:29</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	<i>79.3</i>		<i>%REC</i>	<i>50-103</i>	<i>1</i>	<i>11/26/25 02:03</i>	<i>11/24/25 11:29</i>
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	<i>74.5</i>		<i>%REC</i>	<i>43-105</i>	<i>1</i>	<i>11/26/25 02:03</i>	<i>11/24/25 11:29</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	<i>71.3</i>		<i>%REC</i>	<i>55-111</i>	<i>1</i>	<i>11/26/25 02:03</i>	<i>11/24/25 11:29</i>
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	<i>75.3</i>		<i>%REC</i>	<i>47-100</i>	<i>1</i>	<i>11/26/25 02:03</i>	<i>11/24/25 11:29</i>
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	<i>77.1</i>		<i>%REC</i>	<i>49-110</i>	<i>1</i>	<i>11/26/25 02:03</i>	<i>11/24/25 11:29</i>

### Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	<15.3	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
1,1,2,2-Tetrachloroethane	EPA 8260D	<14.9	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	<21.3	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
1,1,2-Trichloroethane	EPA 8260D	<14.3	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
1,1-Dichloroethane	EPA 8260D	<12.3	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
1,1-Dichloroethylene	EPA 8260D	<10.9	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
1,2,3-Trichlorobenzene	EPA 8260D	<40.4	U	µg/kg	112	1	11/26/25 18:00	11/24/25 16:40
1,2,3-Trichloropropane	EPA 8260D	<14.1	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
1,2,4-Trichlorobenzene	EPA 8260D	<38.2	U	µg/kg	112	1	11/26/25 18:00	11/24/25 16:40
1,2,4-Trimethylbenzene	EPA 8260D	<24.7	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	<31.0	U	µg/kg	112	1	11/26/25 18:00	11/24/25 16:40
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	<19.8	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	<12.8	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 13:48  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB01 (1-2)**

**Lab ID: HN2517794-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	<19.8	U	µg/kg	112	1	11/26/25 18:00	11/24/25 16:40
1,2-Dichloropropane	EPA 8260D	<24.8	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
1,3,5-Trimethylbenzene	EPA 8260D	<23.8	U	µg/kg	112	1	11/26/25 18:00	11/24/25 16:40
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	<23.3	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
1,3-Dichloropropene	EPA 8260D	<18.8	U	µg/kg	67.4	1	11/26/25 18:00	11/24/25 16:40
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	<27.4	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	<80.2	U	µg/kg	225	1	11/26/25 18:00	11/24/25 16:40
2-Hexanone	EPA 8260D	<16.7	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
4-Methyl-2-pentanone (MIBK)	EPA 8260D	<31.4	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Acetone	EPA 8260D	<100.0	U	µg/kg	112	1	11/26/25 18:00	11/24/25 16:40
Benzene	EPA 8260D	<16.3	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Bromochloromethane	EPA 8260D	<17.1	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Bromodichloromethane	EPA 8260D	<18.9	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Bromoform	EPA 8260D	<14.2	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Carbon disulfide	EPA 8260D	<17.4	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Carbon tetrachloride	EPA 8260D	<13.2	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Chlorobenzene	EPA 8260D	<11.2	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Chlorodibromomethane	EPA 8260D	<18.9	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Chloroethane (Ethyl chloride)	EPA 8260D	<94.3	U	µg/kg	112	1	11/26/25 18:00	11/24/25 16:40
Chloroform	EPA 8260D	<12.3	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
cis-1,2-Dichloroethylene	EPA 8260D	<21.7	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
cis-1,3-Dichloropropene	EPA 8260D	<25.4	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Cyclohexane	EPA 8260D	<25.8	U	µg/kg	112	1	11/26/25 18:00	11/24/25 16:40
Dichlorodifluoromethane (Freon-12)	EPA 8260D	<40.8	U	µg/kg	112	1	11/26/25 18:00	11/24/25 16:40
Ethylbenzene	EPA 8260D	<23.9	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Isopropylbenzene	EPA 8260D	<21.3	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
m+p-Xylene	EPA 8260D	<b>158</b>		µg/kg	67.4	1	11/26/25 18:00	11/24/25 16:40
Methyl acetate	EPA 8260D	<40.3	U	µg/kg	281	1	11/26/25 18:00	11/24/25 16:40
Methyl bromide (Bromomethane)	EPA 8260D	<64.4	U	µg/kg	112	1	11/26/25 18:00	11/24/25 16:40

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 13:48  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB01 (1-2)**

**Lab ID: HN2517794-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methyl chloride (Chloromethane)	EPA 8260D	<92.1	U	µg/kg	112	1	11/26/25 18:00	11/24/25 16:40
Methyl tert-butyl ether (MTBE)	EPA 8260D	<24.6	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Methylcyclohexane	EPA 8260D	<12.8	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Methylene chloride (Dichloromethane)	EPA 8260D	<89.4	U	µg/kg	281	1	11/26/25 18:00	11/24/25 16:40
o-Xylene	EPA 8260D	<b>43.8</b>		µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Styrene	EPA 8260D	<13.4	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	<20.3	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Toluene	EPA 8260D	<27.8	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Total Xylene	EPA 8260D	<b>202</b>		µg/kg	101	1	11/26/25 18:00	11/24/25 16:40
trans-1,2-Dichloroethylene	EPA 8260D	<27.8	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
trans-1,3-Dichloropropylene	EPA 8260D	<18.8	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Trichloroethene (Trichloroethylene)	EPA 8260D	<15.1	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	<17.2	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
Vinyl chloride (Chloroethene)	EPA 8260D	<22.4	U	µg/kg	33.7	1	11/26/25 18:00	11/24/25 16:40
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	<b>98.6</b>		<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>11/26/25 18:00</i>	<i>11/24/25 16:40</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	<b>105</b>		<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>11/26/25 18:00</i>	<i>11/24/25 16:40</i>
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	<b>90.7</b>		<i>%REC</i>	<i>72-120</i>	<i>1</i>	<i>11/26/25 18:00</i>	<i>11/24/25 16:40</i>
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	<b>98.8</b>		<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>11/26/25 18:00</i>	<i>11/24/25 16:40</i>

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 14:05  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB02 (3-4)**

**Lab ID: HN2517794-003**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<b>Chlorinated Herbicides by GC/ECD</b>								
2,4,5-T	EPA 8151A	<3.40	U	µg/kg	18.5	1	11/29/25 13:24	11/25/25 09:29
2,4,5-TP (Silvex)	EPA 8151A	<6.06	U	µg/kg	18.5	1	11/29/25 13:24	11/25/25 09:29
2,4-D	EPA 8151A	<9.86	U	µg/kg	36.9	1	11/29/25 13:24	11/25/25 09:29
<i>Surr: DCAA</i>	<i>EPA 8151A</i>	<b>76.0</b>		<i>%REC</i>	<i>10-116</i>	<i>1</i>	<i>11/29/25 13:24</i>	<i>11/25/25 09:29</i>
<b>General Chemistry Parameters</b>								
Percent Moisture	EPA 3550C	<b>14.5</b>		%	0.1	1	11/24/25 14:39	NA
Chloride	EPA 9056A	<3.34	U	mg/kg	10.8	1	11/24/25 22:20	11/24/25 13:15
<b>Metals</b>								
Arsenic	EPA 6020B	<b>2.73</b>		mg/kg	0.302	1	11/26/25 06:29	11/24/25 09:56
Barium	EPA 6020B	<b>17.7</b>		mg/kg	0.302	1	11/26/25 06:29	11/24/25 09:56
Cadmium	EPA 6020B	<0.0181	U	mg/kg	0.121	1	11/26/25 06:29	11/24/25 09:56
Chromium	EPA 6020B	<b>4.08</b>		mg/kg	0.302	1	11/26/25 06:29	11/24/25 09:56
Copper	EPA 6020B	<b>5.82</b>		mg/kg	0.302	1	11/26/25 06:29	11/24/25 09:56
Lead	EPA 6020B	<b>11.4</b>		mg/kg	0.302	1	11/26/25 06:29	11/24/25 09:56
Selenium	EPA 6020B	<0.278	U	mg/kg	0.302	1	11/26/25 06:29	11/24/25 09:56
Silver	EPA 6020B	<0.0399	U	mg/kg	0.302	1	11/26/25 06:29	11/24/25 09:56
Zinc	EPA 6020B	<b>27.0</b>		mg/kg	0.604	1	11/26/25 06:29	11/24/25 09:56
Mercury	EPA 7471B	<0.0140	U	mg/kg	0.0207	1	11/25/25 17:24	11/25/25 08:38
<b>Organochlorine Pesticides by GC/ECD</b>								
4,4'-DDD	EPA 8081B	<17.4	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
4,4'-DDE	EPA 8081B	<18.0	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
4,4'-DDT	EPA 8081B	<18.1	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
Aldrin	EPA 8081B	<17.7	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
alpha-BHC	EPA 8081B	<18.0	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
beta-BHC	EPA 8081B	<17.9	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
Chlordane, Technical	EPA 8081B	<27.0	U	µg/kg	68.2	1	11/25/25 00:02	11/24/25 11:02
cis-Chlordane	EPA 8081B	<18.2	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
delta-BHC	EPA 8081B	<17.9	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
Dieldrin	EPA 8081B	<19.1	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 14:05  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB02 (3-4)**

**Lab ID: HN2517794-003**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Endosulfan I	EPA 8081B	<18.3	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
Endosulfan II	EPA 8081B	<18.1	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
Endosulfan sulfate	EPA 8081B	<16.8	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
Endrin	EPA 8081B	<22.1	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
Endrin aldehyde	EPA 8081B	<17.3	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
Endrin ketone	EPA 8081B	<16.6	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
gamma-BHC (Lindane)	EPA 8081B	<17.9	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
Heptachlor	EPA 8081B	<17.6	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
Heptachlor epoxide	EPA 8081B	<18.0	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
Methoxychlor	EPA 8081B	<18.2	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
Toxaphene	EPA 8081B	<29.5	U	µg/kg	164	1	11/25/25 00:02	11/24/25 11:02
trans-Chlordane	EPA 8081B	<18.1	U	µg/kg	27.3	1	11/25/25 00:02	11/24/25 11:02
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	<b>116</b>		<i>%REC</i>	<i>53-151</i>	<i>1</i>	<i>11/25/25 00:02</i>	<i>11/24/25 11:02</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	<b>97.8</b>		<i>%REC</i>	<i>67-127</i>	<i>1</i>	<i>11/25/25 00:02</i>	<i>11/24/25 11:02</i>

### Polychlorinated Biphenyls (PCBs) by GC/ECD

Aroclor 1016	EPA 8082A	<62.4	U	µg/kg	182	1	11/24/25 20:49	11/24/25 10:45
Aroclor 1221	EPA 8082A	<62.4	U	µg/kg	182	1	11/24/25 20:49	11/24/25 10:45
Aroclor 1232	EPA 8082A	<62.4	U	µg/kg	182	1	11/24/25 20:49	11/24/25 10:45
Aroclor 1242	EPA 8082A	<62.4	U	µg/kg	182	1	11/24/25 20:49	11/24/25 10:45
Aroclor 1248	EPA 8082A	<62.4	U	µg/kg	182	1	11/24/25 20:49	11/24/25 10:45
Aroclor 1254	EPA 8082A	<50.8	U	µg/kg	182	1	11/24/25 20:49	11/24/25 10:45
Aroclor 1260	EPA 8082A	<50.8	U	µg/kg	182	1	11/24/25 20:49	11/24/25 10:45
Aroclor 1262	EPA 8082A	<50.8	U	µg/kg	182	1	11/24/25 20:49	11/24/25 10:45
Aroclor 1268	EPA 8082A	<50.8	U	µg/kg	182	1	11/24/25 20:49	11/24/25 10:45
Total PCB	EPA 8082A	<50.8	U	µg/kg	182	1	11/24/25 20:49	11/24/25 10:45
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	<b>109</b>		<i>%REC</i>	<i>54-146</i>	<i>1</i>	<i>11/24/25 20:49</i>	<i>11/24/25 10:45</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	<b>97.8</b>		<i>%REC</i>	<i>58-140</i>	<i>1</i>	<i>11/24/25 20:49</i>	<i>11/24/25 10:45</i>

### Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	<15.2	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
1,2,4,5-Tetrachlorobenzene	EPA 8270E	<21.6	U	µg/kg	935	1	11/26/25 02:30	11/24/25 11:29

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 14:05  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB02 (3-4)**

**Lab ID: HN2517794-003**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	<67.1	U	µg/kg	468	1	11/26/25 02:30	11/24/25 11:29
1-Methylnaphthalene	EPA 8270E	<b>24.3</b>		µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	EPA 8270E	<21.9	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
2,3,4,6-Tetrachlorophenol	EPA 8270E	<68.6	U	µg/kg	187	1	11/26/25 02:30	11/24/25 11:29
2,4,5-Trichlorophenol	EPA 8270E	<55.5	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
2,4,6-Trichlorophenol	EPA 8270E	<24.9	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
2,4-Dichlorophenol	EPA 8270E	<50.4	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
2,4-Dimethylphenol	EPA 8270E	<48.1	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
2,4-Dinitrophenol	EPA 8270E	<684	U	µg/kg	935	1	11/26/25 02:30	11/24/25 11:29
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	<60.8	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	<23.9	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
2-Chloronaphthalene	EPA 8270E	<13.1	U	µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
2-Chlorophenol	EPA 8270E	<61.3	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	<78.2	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
2-Methylnaphthalene	EPA 8270E	<b>22.5</b>		µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
2-Methylphenol (o-Cresol)	EPA 8270E	<25.3	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
2-Nitroaniline	EPA 8270E	<52.0	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
2-Nitrophenol	EPA 8270E	<26.7	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
3&4-Methylphenol	EPA 8270E	<51.0	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
3,3'-Dichlorobenzidine	EPA 8270E	<43.7	U	µg/kg	468	1	11/26/25 02:30	11/24/25 11:29
3-Nitroaniline	EPA 8270E	<54.3	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	<51.3	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
4-Chloro-3-methylphenol	EPA 8270E	<26.7	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
4-Chloroaniline	EPA 8270E	<47.6	U	µg/kg	187	1	11/26/25 02:30	11/24/25 11:29
4-Chlorophenyl phenylether	EPA 8270E	<25.9	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
4-Nitroaniline	EPA 8270E	<145	U	µg/kg	468	1	11/26/25 02:30	11/24/25 11:29
4-Nitrophenol	EPA 8270E	<219	U	µg/kg	935	1	11/26/25 02:30	11/24/25 11:29
Acenaphthene	EPA 8270E	<b>202</b>		µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 14:05  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB02 (3-4)**

**Lab ID: HN2517794-003**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Acenaphthylene	EPA 8270E	<16.2	U	µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
Acetophenone	EPA 8270E	<14.7	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Anthracene	EPA 8270E	<b>687</b>		µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
Atrazine	EPA 8270E	<54.9	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Benzaldehyde	EPA 8270E	<144	U	µg/kg	187	1	11/26/25 02:30	11/24/25 11:29
Benzo(a)anthracene	EPA 8270E	<b>2120</b>		µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
Benzo(a)pyrene	EPA 8270E	<b>1800</b>		µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
Benzo(b)fluoranthene	EPA 8270E	<b>2420</b>		µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
Benzo(g,h,i)perylene	EPA 8270E	<b>1050</b>		µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
Benzo(k)fluoranthene	EPA 8270E	<b>858</b>		µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
bis(2-Chloroethoxy) methane	EPA 8270E	<59.3	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
bis(2-Chloroethyl) ether	EPA 8270E	<26.5	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Butyl benzyl phthalate	EPA 8270E	<117	U	µg/kg	187	1	11/26/25 02:30	11/24/25 11:29
Caprolactam	EPA 8270E	<84.5	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Carbazole	EPA 8270E	<b>144</b>		µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Chrysene	EPA 8270E	<b>1860</b>		µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	EPA 8270E	<77.4	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Dibenz(a,h) anthracene	EPA 8270E	<b>271</b>		µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Dibenzofuran	EPA 8270E	<13.8	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Diethyl phthalate	EPA 8270E	<31.8	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Dimethyl phthalate	EPA 8270E	<18.3	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Fluoranthene	EPA 8270E	<b>4460</b>		µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
Fluorene	EPA 8270E	<b>198</b>		µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
Hexachlorobenzene	EPA 8270E	<27.2	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Hexachlorobutadiene	EPA 8270E	<22.1	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Hexachlorocyclopentadiene	EPA 8270E	<88.7	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Hexachloroethane	EPA 8270E	<38.8	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Indeno(1,2,3-cd) pyrene	EPA 8270E	<b>1180</b>		µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
Isophorone	EPA 8270E	<18.3	U	µg/kg	468	1	11/26/25 02:30	11/24/25 11:29
Methylphenol, Total	EPA 8270E	<25.3	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 14:05  
**Date Received:** 11/22/25 08:00

**CLIENT ID:** 5928 SB02 (3-4)

**Lab ID:** HN2517794-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Naphthalene	EPA 8270E	<b>28.1</b>		µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
Nitrobenzene	EPA 8270E	<31.5	U	µg/kg	468	1	11/26/25 02:30	11/24/25 11:29
n-Nitrosodi-n-propylamine	EPA 8270E	<15.4	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
N-Nitrosodiphenylamine	EPA 8270E	<54.2	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Pentachlorophenol	EPA 8270E	<74.4	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Phenanthrene	EPA 8270E	<b>2500</b>		µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
Phenol	EPA 8270E	<47.0	U	µg/kg	92.7	1	11/26/25 02:30	11/24/25 11:29
Pyrene	EPA 8270E	<b>4060</b>		µg/kg	18.7	1	11/26/25 02:30	11/24/25 11:29
Pyridine	EPA 8270E	<184	U	µg/kg	468	1	11/26/25 02:30	11/24/25 11:29
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	<b>77.6</b>		%REC	48-94	1	11/26/25 02:30	11/24/25 11:29
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	<b>73.3</b>		%REC	50-103	1	11/26/25 02:30	11/24/25 11:29
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	<b>68.8</b>		%REC	43-105	1	11/26/25 02:30	11/24/25 11:29
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	<b>79.4</b>		%REC	55-111	1	11/26/25 02:30	11/24/25 11:29
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	<b>72.0</b>		%REC	47-100	1	11/26/25 02:30	11/24/25 11:29
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	<b>76.3</b>		%REC	49-110	1	11/26/25 02:30	11/24/25 11:29

### Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	<18.3	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
1,1,2,2-Tetrachloroethane	EPA 8260D	<17.8	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	<25.6	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
1,1,2-Trichloroethane	EPA 8260D	<17.2	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
1,1-Dichloroethane	EPA 8260D	<14.7	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
1,1-Dichloroethylene	EPA 8260D	<13.1	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
1,2,3-Trichlorobenzene	EPA 8260D	<48.5	U	µg/kg	135	1	11/26/25 18:16	11/24/25 16:40
1,2,3-Trichloropropane	EPA 8260D	<16.9	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
1,2,4-Trichlorobenzene	EPA 8260D	<45.8	U	µg/kg	135	1	11/26/25 18:16	11/24/25 16:40
1,2,4-Trimethylbenzene	EPA 8260D	<29.6	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	<37.2	U	µg/kg	135	1	11/26/25 18:16	11/24/25 16:40
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	<23.8	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	<15.3	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 14:05  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB02 (3-4)**

**Lab ID: HN2517794-003**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	<23.8	U	µg/kg	135	1	11/26/25 18:16	11/24/25 16:40
1,2-Dichloropropane	EPA 8260D	<29.8	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
1,3,5-Trimethylbenzene	EPA 8260D	<28.6	U	µg/kg	135	1	11/26/25 18:16	11/24/25 16:40
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	<27.9	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
1,3-Dichloropropene	EPA 8260D	<22.6	U	µg/kg	80.9	1	11/26/25 18:16	11/24/25 16:40
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	<32.9	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	<96.2	U	µg/kg	270	1	11/26/25 18:16	11/24/25 16:40
2-Hexanone	EPA 8260D	<20.1	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
4-Methyl-2-pentanone (MIBK)	EPA 8260D	<37.7	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Acetone	EPA 8260D	<120	U	µg/kg	135	1	11/26/25 18:16	11/24/25 16:40
Benzene	EPA 8260D	<19.6	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Bromochloromethane	EPA 8260D	<20.6	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Bromodichloromethane	EPA 8260D	<22.6	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Bromoform	EPA 8260D	<17.0	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Carbon disulfide	EPA 8260D	<20.9	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Carbon tetrachloride	EPA 8260D	<15.8	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Chlorobenzene	EPA 8260D	<13.4	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Chlorodibromomethane	EPA 8260D	<22.7	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Chloroethane (Ethyl chloride)	EPA 8260D	<113	U	µg/kg	135	1	11/26/25 18:16	11/24/25 16:40
Chloroform	EPA 8260D	<14.8	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
cis-1,2-Dichloroethylene	EPA 8260D	<26.0	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
cis-1,3-Dichloropropene	EPA 8260D	<30.5	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Cyclohexane	EPA 8260D	<31.0	U	µg/kg	135	1	11/26/25 18:16	11/24/25 16:40
Dichlorodifluoromethane (Freon-12)	EPA 8260D	<48.9	U	µg/kg	135	1	11/26/25 18:16	11/24/25 16:40
Ethylbenzene	EPA 8260D	<28.7	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Isopropylbenzene	EPA 8260D	<25.5	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
m+p-Xylene	EPA 8260D	<53.9	U	µg/kg	80.9	1	11/26/25 18:16	11/24/25 16:40
Methyl acetate	EPA 8260D	<48.4	U	µg/kg	337	1	11/26/25 18:16	11/24/25 16:40
Methyl bromide (Bromomethane)	EPA 8260D	<77.3	U	µg/kg	135	1	11/26/25 18:16	11/24/25 16:40

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 14:05  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB02 (3-4)**

**Lab ID: HN2517794-003**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date	
							Analyzed	Extracted
Methyl chloride (Chloromethane)	EPA 8260D	<110	U	µg/kg	135	1	11/26/25 18:16	11/24/25 16:40
Methyl tert-butyl ether (MTBE)	EPA 8260D	<29.5	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Methylcyclohexane	EPA 8260D	<15.4	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Methylene chloride (Dichloromethane)	EPA 8260D	<107	U	µg/kg	337	1	11/26/25 18:16	11/24/25 16:40
o-Xylene	EPA 8260D	<15.6	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Styrene	EPA 8260D	<16.0	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	<24.3	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Toluene	EPA 8260D	<33.3	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Total Xylene	EPA 8260D	<15.6	U	µg/kg	121	1	11/26/25 18:16	11/24/25 16:40
trans-1,2-Dichloroethylene	EPA 8260D	<33.4	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
trans-1,3-Dichloropropylene	EPA 8260D	<22.6	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Trichloroethene (Trichloroethylene)	EPA 8260D	<18.1	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	<20.7	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
Vinyl chloride (Chloroethene)	EPA 8260D	<26.9	U	µg/kg	40.4	1	11/26/25 18:16	11/24/25 16:40
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	<b>105</b>		<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>11/26/25 18:16</i>	<i>11/24/25 16:40</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	<b>99.2</b>		<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>11/26/25 18:16</i>	<i>11/24/25 16:40</i>
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	<b>86.8</b>		<i>%REC</i>	<i>72-120</i>	<i>1</i>	<i>11/26/25 18:16</i>	<i>11/24/25 16:40</i>
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	<b>95.6</b>		<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>11/26/25 18:16</i>	<i>11/24/25 16:40</i>

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 14:20  
**Date Received:** 11/22/25 08:00

**CLIENT ID:** 5928 SB03 (5-6)

**Lab ID:** HN2517794-005

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<b>Chlorinated Herbicides by GC/ECD</b>								
2,4,5-T	EPA 8151A	<3.36	U	µg/kg	18.2	1	11/29/25 13:37	11/25/25 09:29
2,4,5-TP (Silvex)	EPA 8151A	<5.99	U	µg/kg	18.2	1	11/29/25 13:37	11/25/25 09:29
2,4-D	EPA 8151A	<9.74	U	µg/kg	36.5	1	11/29/25 13:37	11/25/25 09:29
<i>Surr: DCAA</i>	<i>EPA 8151A</i>	<b>74.0</b>		<i>%REC</i>	<i>10-116</i>	<i>1</i>	<i>11/29/25 13:37</i>	<i>11/25/25 09:29</i>
<b>General Chemistry Parameters</b>								
Percent Moisture	EPA 3550C	<b>11.2</b>		%	0.1	1	11/24/25 14:39	NA
Chloride	EPA 9056A	<b>79.7</b>		mg/kg	11.1	1	11/24/25 22:29	11/24/25 13:15
<b>Metals</b>								
Arsenic	EPA 6020B	<b>7.85</b>		mg/kg	0.331	1	11/26/25 06:32	11/24/25 09:56
Barium	EPA 6020B	<b>39.5</b>		mg/kg	0.331	1	11/26/25 06:32	11/24/25 09:56
Cadmium	EPA 6020B	<0.0198	U	mg/kg	0.132	1	11/26/25 06:32	11/24/25 09:56
Chromium	EPA 6020B	<b>10.8</b>		mg/kg	0.331	1	11/26/25 06:32	11/24/25 09:56
Copper	EPA 6020B	<b>10.5</b>		mg/kg	0.331	1	11/26/25 06:32	11/24/25 09:56
Lead	EPA 6020B	<b>6.24</b>		mg/kg	0.331	1	11/26/25 06:32	11/24/25 09:56
Selenium	EPA 6020B	<b>0.365</b>		mg/kg	0.331	1	11/26/25 06:32	11/24/25 09:56
Silver	EPA 6020B	<0.0437	U	mg/kg	0.331	1	11/26/25 06:32	11/24/25 09:56
Zinc	EPA 6020B	<b>31.5</b>		mg/kg	0.661	1	11/26/25 06:32	11/24/25 09:56
Mercury	EPA 7471B	<b>0.0230</b>		mg/kg	0.0220	1	11/25/25 17:31	11/25/25 08:38
<b>Organochlorine Pesticides by GC/ECD</b>								
4,4'-DDD	EPA 8081B	<17.7	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
4,4'-DDE	EPA 8081B	<18.3	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
4,4'-DDT	EPA 8081B	<18.5	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
Aldrin	EPA 8081B	<18.0	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
alpha-BHC	EPA 8081B	<18.3	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
beta-BHC	EPA 8081B	<18.2	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
Chlordane, Technical	EPA 8081B	<27.5	U	µg/kg	69.4	1	11/25/25 00:17	11/24/25 11:02
cis-Chlordane	EPA 8081B	<18.5	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
delta-BHC	EPA 8081B	<18.2	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
Dieldrin	EPA 8081B	<19.4	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 14:20  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB03 (5-6)**

**Lab ID: HN2517794-005**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Endosulfan I	EPA 8081B	<18.6	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
Endosulfan II	EPA 8081B	<18.4	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
Endosulfan sulfate	EPA 8081B	<17.1	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
Endrin	EPA 8081B	<22.4	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
Endrin aldehyde	EPA 8081B	<17.6	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
Endrin ketone	EPA 8081B	<16.9	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
gamma-BHC (Lindane)	EPA 8081B	<18.2	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
Heptachlor	EPA 8081B	<17.9	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
Heptachlor epoxide	EPA 8081B	<18.4	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
Methoxychlor	EPA 8081B	<18.6	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
Toxaphene	EPA 8081B	<30.0	U	µg/kg	166	1	11/25/25 00:17	11/24/25 11:02
trans-Chlordane	EPA 8081B	<18.4	U	µg/kg	27.7	1	11/25/25 00:17	11/24/25 11:02
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	<b>85.2</b>		<i>%REC</i>	<i>53-151</i>	<i>1</i>	<i>11/25/25 00:17</i>	<i>11/24/25 11:02</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	<b>97.2</b>		<i>%REC</i>	<i>67-127</i>	<i>1</i>	<i>11/25/25 00:17</i>	<i>11/24/25 11:02</i>

### Polychlorinated Biphenyls (PCBs) by GC/ECD

Aroclor 1016	EPA 8082A	<63.4	U	µg/kg	185	1	11/24/25 21:00	11/24/25 10:45
Aroclor 1221	EPA 8082A	<63.4	U	µg/kg	185	1	11/24/25 21:00	11/24/25 10:45
Aroclor 1232	EPA 8082A	<63.4	U	µg/kg	185	1	11/24/25 21:00	11/24/25 10:45
Aroclor 1242	EPA 8082A	<63.4	U	µg/kg	185	1	11/24/25 21:00	11/24/25 10:45
Aroclor 1248	EPA 8082A	<63.4	U	µg/kg	185	1	11/24/25 21:00	11/24/25 10:45
Aroclor 1254	EPA 8082A	<51.7	U	µg/kg	185	1	11/24/25 21:00	11/24/25 10:45
Aroclor 1260	EPA 8082A	<51.7	U	µg/kg	185	1	11/24/25 21:00	11/24/25 10:45
Aroclor 1262	EPA 8082A	<51.7	U	µg/kg	185	1	11/24/25 21:00	11/24/25 10:45
Aroclor 1268	EPA 8082A	<51.7	U	µg/kg	185	1	11/24/25 21:00	11/24/25 10:45
Total PCB	EPA 8082A	<51.7	U	µg/kg	185	1	11/24/25 21:00	11/24/25 10:45
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	<b>75.0</b>		<i>%REC</i>	<i>54-146</i>	<i>1</i>	<i>11/24/25 21:00</i>	<i>11/24/25 10:45</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	<b>95.4</b>		<i>%REC</i>	<i>58-140</i>	<i>1</i>	<i>11/24/25 21:00</i>	<i>11/24/25 10:45</i>

### Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	<14.3	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
1,2,4,5-Tetrachlorobenzene	EPA 8270E	<20.4	U	µg/kg	883	1	11/26/25 02:58	11/24/25 11:29

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 14:20  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB03 (5-6)**

**Lab ID: HN2517794-005**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	<63.4	U	µg/kg	442	1	11/26/25 02:58	11/24/25 11:29
1-Methylnaphthalene	EPA 8270E	<12.7	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	EPA 8270E	<20.7	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
2,3,4,6-Tetrachlorophenol	EPA 8270E	<64.7	U	µg/kg	177	1	11/26/25 02:58	11/24/25 11:29
2,4,5-Trichlorophenol	EPA 8270E	<52.4	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
2,4,6-Trichlorophenol	EPA 8270E	<23.5	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
2,4-Dichlorophenol	EPA 8270E	<47.6	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
2,4-Dimethylphenol	EPA 8270E	<45.5	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
2,4-Dinitrophenol	EPA 8270E	<646	U	µg/kg	883	1	11/26/25 02:58	11/24/25 11:29
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	<57.4	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	<22.6	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
2-Chloronaphthalene	EPA 8270E	<12.4	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
2-Chlorophenol	EPA 8270E	<57.8	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	<73.8	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
2-Methylnaphthalene	EPA 8270E	<8.99	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
2-Methylphenol (o-Cresol)	EPA 8270E	<23.9	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
2-Nitroaniline	EPA 8270E	<49.1	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
2-Nitrophenol	EPA 8270E	<25.2	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
3&4-Methylphenol	EPA 8270E	<48.2	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
3,3'-Dichlorobenzidine	EPA 8270E	<41.3	U	µg/kg	442	1	11/26/25 02:58	11/24/25 11:29
3-Nitroaniline	EPA 8270E	<51.3	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	<48.4	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
4-Chloro-3-methylphenol	EPA 8270E	<25.2	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
4-Chloroaniline	EPA 8270E	<44.9	U	µg/kg	177	1	11/26/25 02:58	11/24/25 11:29
4-Chlorophenyl phenylether	EPA 8270E	<24.4	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
4-Nitroaniline	EPA 8270E	<137	U	µg/kg	442	1	11/26/25 02:58	11/24/25 11:29
4-Nitrophenol	EPA 8270E	<207	U	µg/kg	883	1	11/26/25 02:58	11/24/25 11:29
Acenaphthene	EPA 8270E	<12.8	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 14:20  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB03 (5-6)**

**Lab ID: HN2517794-005**

Analyte	Method	Results	Qual	Units	MRL	Dilution	Date	Date
						Factor	Analyzed	Extracted
Acenaphthylene	EPA 8270E	<15.3	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
Acetophenone	EPA 8270E	<13.8	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Anthracene	EPA 8270E	<12.5	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
Atrazine	EPA 8270E	<51.8	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Benzaldehyde	EPA 8270E	<136	U	µg/kg	177	1	11/26/25 02:58	11/24/25 11:29
Benzo(a)anthracene	EPA 8270E	<15.3	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
Benzo(a)pyrene	EPA 8270E	<10.8	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
Benzo(b)fluoranthene	EPA 8270E	<13.2	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
Benzo(g,h,i)perylene	EPA 8270E	<13.6	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
Benzo(k)fluoranthene	EPA 8270E	<13.4	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
bis(2-Chloroethoxy) methane	EPA 8270E	<56.0	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
bis(2-Chloroethyl) ether	EPA 8270E	<25.0	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Butyl benzyl phthalate	EPA 8270E	<111	U	µg/kg	177	1	11/26/25 02:58	11/24/25 11:29
Caprolactam	EPA 8270E	<79.8	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Carbazole	EPA 8270E	<26.0	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Chrysene	EPA 8270E	<14.3	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	EPA 8270E	<73.1	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Dibenz(a,h) anthracene	EPA 8270E	<9.55	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Dibenzofuran	EPA 8270E	<13.0	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Diethyl phthalate	EPA 8270E	<30.1	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Dimethyl phthalate	EPA 8270E	<17.2	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Fluoranthene	EPA 8270E	<8.49	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
Fluorene	EPA 8270E	<12.8	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
Hexachlorobenzene	EPA 8270E	<25.7	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Hexachlorobutadiene	EPA 8270E	<20.8	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Hexachlorocyclopentadiene	EPA 8270E	<83.8	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Hexachloroethane	EPA 8270E	<36.6	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Indeno(1,2,3-cd) pyrene	EPA 8270E	<12.3	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
Isophorone	EPA 8270E	<17.3	U	µg/kg	442	1	11/26/25 02:58	11/24/25 11:29
Methylphenol, Total	EPA 8270E	<23.9	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 14:20  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB03 (5-6)**

**Lab ID: HN2517794-005**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Naphthalene	EPA 8270E	<11.3	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
Nitrobenzene	EPA 8270E	<29.7	U	µg/kg	442	1	11/26/25 02:58	11/24/25 11:29
n-Nitrosodi-n-propylamine	EPA 8270E	<14.6	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
N-Nitrosodiphenylamine	EPA 8270E	<51.2	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Pentachlorophenol	EPA 8270E	<70.2	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Phenanthrene	EPA 8270E	<8.22	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
Phenol	EPA 8270E	<44.4	U	µg/kg	87.5	1	11/26/25 02:58	11/24/25 11:29
Pyrene	EPA 8270E	<8.82	U	µg/kg	17.7	1	11/26/25 02:58	11/24/25 11:29
Pyridine	EPA 8270E	<174	U	µg/kg	442	1	11/26/25 02:58	11/24/25 11:29
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	<b>66.4</b>		<i>%REC</i>	<i>48-94</i>	<i>1</i>	<i>11/26/25 02:58</i>	<i>11/24/25 11:29</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	<b>72.6</b>		<i>%REC</i>	<i>50-103</i>	<i>1</i>	<i>11/26/25 02:58</i>	<i>11/24/25 11:29</i>
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	<b>67.5</b>		<i>%REC</i>	<i>43-105</i>	<i>1</i>	<i>11/26/25 02:58</i>	<i>11/24/25 11:29</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	<b>71.4</b>		<i>%REC</i>	<i>55-111</i>	<i>1</i>	<i>11/26/25 02:58</i>	<i>11/24/25 11:29</i>
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	<b>72.0</b>		<i>%REC</i>	<i>47-100</i>	<i>1</i>	<i>11/26/25 02:58</i>	<i>11/24/25 11:29</i>
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	<b>69.3</b>		<i>%REC</i>	<i>49-110</i>	<i>1</i>	<i>11/26/25 02:58</i>	<i>11/24/25 11:29</i>

### Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	<16.8	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
1,1,2,2-Tetrachloroethane	EPA 8260D	<16.3	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	<23.4	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
1,1,2-Trichloroethane	EPA 8260D	<15.7	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
1,1-Dichloroethane	EPA 8260D	<13.5	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
1,1-Dichloroethylene	EPA 8260D	<12.0	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
1,2,3-Trichlorobenzene	EPA 8260D	<44.4	U	µg/kg	123	1	11/26/25 18:32	11/24/25 16:40
1,2,3-Trichloropropane	EPA 8260D	<15.5	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
1,2,4-Trichlorobenzene	EPA 8260D	<41.9	U	µg/kg	123	1	11/26/25 18:32	11/24/25 16:40
1,2,4-Trimethylbenzene	EPA 8260D	<27.1	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	<34.1	U	µg/kg	123	1	11/26/25 18:32	11/24/25 16:40
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	<21.7	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	<14.0	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 14:20  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB03 (5-6)**

**Lab ID: HN2517794-005**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	<21.7	U	µg/kg	123	1	11/26/25 18:32	11/24/25 16:40
1,2-Dichloropropane	EPA 8260D	<27.3	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
1,3,5-Trimethylbenzene	EPA 8260D	<26.1	U	µg/kg	123	1	11/26/25 18:32	11/24/25 16:40
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	<25.5	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
1,3-Dichloropropene	EPA 8260D	<20.7	U	µg/kg	74.0	1	11/26/25 18:32	11/24/25 16:40
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	<30.1	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	<88.0	U	µg/kg	247	1	11/26/25 18:32	11/24/25 16:40
2-Hexanone	EPA 8260D	<18.3	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
4-Methyl-2-pentanone (MIBK)	EPA 8260D	<34.5	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Acetone	EPA 8260D	<110	U	µg/kg	123	1	11/26/25 18:32	11/24/25 16:40
Benzene	EPA 8260D	<17.9	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Bromochloromethane	EPA 8260D	<18.8	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Bromodichloromethane	EPA 8260D	<20.7	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Bromoform	EPA 8260D	<15.6	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Carbon disulfide	EPA 8260D	<19.1	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Carbon tetrachloride	EPA 8260D	<14.5	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Chlorobenzene	EPA 8260D	<12.3	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Chlorodibromomethane	EPA 8260D	<20.8	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Chloroethane (Ethyl chloride)	EPA 8260D	<104	U	µg/kg	123	1	11/26/25 18:32	11/24/25 16:40
Chloroform	EPA 8260D	<13.5	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
cis-1,2-Dichloroethylene	EPA 8260D	<23.8	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
cis-1,3-Dichloropropene	EPA 8260D	<27.9	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Cyclohexane	EPA 8260D	<28.3	U	µg/kg	123	1	11/26/25 18:32	11/24/25 16:40
Dichlorodifluoromethane (Freon-12)	EPA 8260D	<44.8	U	µg/kg	123	1	11/26/25 18:32	11/24/25 16:40
Ethylbenzene	EPA 8260D	<26.2	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Isopropylbenzene	EPA 8260D	<23.4	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
m+p-Xylene	EPA 8260D	<49.3	U	µg/kg	74.0	1	11/26/25 18:32	11/24/25 16:40
Methyl acetate	EPA 8260D	<44.3	U	µg/kg	308	1	11/26/25 18:32	11/24/25 16:40
Methyl bromide (Bromomethane)	EPA 8260D	<70.7	U	µg/kg	123	1	11/26/25 18:32	11/24/25 16:40

# Analytical Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 14:20  
**Date Received:** 11/22/25 08:00

**CLIENT ID: 5928 SB03 (5-6)**

**Lab ID: HN2517794-005**

Analyte	Method	Results	Qual	Units	MRL	Dilution	Date	Date
						Factor	Analyzed	Extracted
Methyl chloride (Chloromethane)	EPA 8260D	<101	U	µg/kg	123	1	11/26/25 18:32	11/24/25 16:40
Methyl tert-butyl ether (MTBE)	EPA 8260D	<27.0	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Methylcyclohexane	EPA 8260D	<14.1	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Methylene chloride (Dichloromethane)	EPA 8260D	<98.2	U	µg/kg	308	1	11/26/25 18:32	11/24/25 16:40
o-Xylene	EPA 8260D	<14.3	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Styrene	EPA 8260D	<14.7	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	<22.3	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Toluene	EPA 8260D	<30.5	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Total Xylene	EPA 8260D	<14.3	U	µg/kg	111	1	11/26/25 18:32	11/24/25 16:40
trans-1,2-Dichloroethylene	EPA 8260D	<30.5	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
trans-1,3-Dichloropropylene	EPA 8260D	<20.7	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Trichloroethene (Trichloroethylene)	EPA 8260D	<16.6	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	<18.9	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
Vinyl chloride (Chloroethene)	EPA 8260D	<24.6	U	µg/kg	37.0	1	11/26/25 18:32	11/24/25 16:40
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	<b>101</b>		<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>11/26/25 18:32</i>	<i>11/24/25 16:40</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	<b>99.6</b>		<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>11/26/25 18:32</i>	<i>11/24/25 16:40</i>
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	<b>86.0</b>		<i>%REC</i>	<i>72-120</i>	<i>1</i>	<i>11/26/25 18:32</i>	<i>11/24/25 16:40</i>
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	<b>98.7</b>		<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>11/26/25 18:32</i>	<i>11/24/25 16:40</i>



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2354016

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3727376

**Chlorinated Herbicides by GC/ECD**

**MB** CLIENT ID: Method Blank Lab ID: QC-2354016-001

**Method:** EPA 8151A **Dilution:** 1 **Analysis Date:** 11/29/25 16:13  
**Prep Date:** 11/25/25 09:30

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	<b>37.0</b>	µg/kg		50		74.0	10-116			

**LCS** CLIENT ID: Laboratory Control Sample Lab ID: QC-2354016-002

**Method:** EPA 8151A **Dilution:** 1 **Analysis Date:** 11/28/25 14:12  
**Prep Date:** 11/25/25 09:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	26.0	µg/kg	5.00	50		52.0	10-119			
2,4,5-TP (Silvex)	24.0	µg/kg	5.00	50		48.0	10-101			
2,4-D	26.0	µg/kg	10.0	50		52.0	10-128			
Surr: DCAA	<b>29.0</b>	µg/kg		50		58.0	10-116			

**MS** CLIENT ID: Batch QC Lab ID: QC-2354016-005

**Method:** EPA 8151A **Dilution:** 1 **Analysis Date:** 11/28/25 14:25  
**Prep Date:** 11/25/25 09:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	27.0	µg/kg	5.26	50	<0.920	54.0	10-119			
2,4,5-TP (Silvex)	24.0	µg/kg	5.26	50	<1.64	48.0	10-101			
2,4-D	28.0	µg/kg	10.5	50	<2.67	56.0	10-128			
Surr: DCAA	<b>34.0</b>	µg/kg		50		68.0	10-116			

**MSD** CLIENT ID: Batch QC Lab ID: QC-2354016-006

**Method:** EPA 8151A **Dilution:** 1 **Analysis Date:** 11/28/25 14:53  
**Prep Date:** 11/25/25 09:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	24.0	µg/kg	5.25	49.975	<0.920	48.0	10-119	11.8	30	
2,4,5-TP (Silvex)	22.0	µg/kg	5.25	49.975	<1.64	44.0	10-101	8.75	30	
2,4-D	24.0	µg/kg	10.5	49.975	<2.67	48.0	10-128	15.4	30	
Surr: DCAA	<b>27.0</b>	µg/kg		49.975		54.0	10-116	23.0	30	

The following samples were analyzed in this batch: HN2517794-001, HN2517794-003, HN2517794-005



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352277

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3713526

**General Chemistry Parameters**

**MB** CLIENT ID: Method Blank Lab ID: QC-2352277-001

**Method:** EPA 3550C **Dilution:** 1 **Analysis Date:** 11/24/25 14:39  
**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-2352277-002

**Method:** EPA 3550C **Dilution:** 1 **Analysis Date:** 11/24/25 14:39  
**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-2352277-004

**Method:** EPA 3550C **Dilution:** 1 **Analysis Date:** 11/24/25 14:39  
**Prep Date:** NA

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	8.1	%	0.1		7.9			2.76	10	

**The following samples were analyzed in this batch:** HN2517794-001, HN2517794-003, HN2517794-005



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352277

**Work Order:** HN2517794  
**Date Collected:** 11/21/25 11:23  
**Date Received:** 11/22/25 08:00  
**Run ID:** 3718798

**General Chemistry Parameters**

**DUP** CLIENT ID: Batch QC Lab ID: QC-2352277-015

Method: EPA 3550C Dilution: 1 Analysis Date: 11/25/25 19:57  
 Prep Date: NA

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	4.8	%	0.1			<0.1		3.67	10	

The following samples were analyzed in this batch: HN2517794-001, HN2517794-003, HN2517794-005

# QA/QC Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352301

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3717190

## General Chemistry Parameters

**MB** CLIENT ID: Method Blank Lab ID: QC-2352301-001

**Method:** EPA 9056A **Dilution:** 1 **Analysis Date:** 11/24/25 20:13  
**Prep Date:** 11/24/25 13:16

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-2352301-002

**Method:** EPA 9056A **Dilution:** 1 **Analysis Date:** 11/24/25 20:22  
**Prep Date:** 11/24/25 13:16

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	97.3	mg/kg	10.0	100		97.3	87-110			

**MS** CLIENT ID: Batch QC Lab ID: QC-2352301-004

**Method:** EPA 9056A **Dilution:** 1 **Analysis Date:** 11/24/25 20:42  
**Prep Date:** 11/24/25 13:16

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	96.3	mg/kg	10.5	96.525	4.7	95.3	87-110			

**MSD** CLIENT ID: Batch QC Lab ID: QC-2352301-005

**Method:** EPA 9056A **Dilution:** 1 **Analysis Date:** 11/24/25 20:52  
**Prep Date:** 11/24/25 13:16

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	98.1	mg/kg	10.6	97.466	4.7	96.3	87-110	1.93	15	

The following samples were analyzed in this batch: HN2517794-001, HN2517794-003, HN2517794-005



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352166

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3718901

**Metals**

**MB** CLIENT ID: Method Blank Lab ID: QC-2352166-001

**Method:** EPA 6020B **Dilution:** 1 **Analysis Date:** 11/26/25 05:33  
**Prep Date:** 11/24/25 09:57

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-2352166-002

**Method:** EPA 6020B **Dilution:** 1 **Analysis Date:** 11/26/25 05:36  
**Prep Date:** 11/24/25 09:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	4.75	mg/kg	0.250	5		95.0	80-120			
Barium	4.67	mg/kg	0.250	5		93.3	80-120			
Cadmium	4.51	mg/kg	0.100	5		90.2	80-120			
Chromium	4.74	mg/kg	0.250	5		94.7	80-120			
Copper	5.58	mg/kg	0.250	5		112	80-120			
Lead	4.51	mg/kg	0.250	5		90.3	80-120			
Selenium	4.24	mg/kg	0.250	5		84.9	80-120			
Silver	4.88	mg/kg	0.250	5		97.6	80-120			
Zinc	5.17	mg/kg	0.500	5		103	80-120			

**MS** CLIENT ID: Batch QC Lab ID: QC-2352166-004

**Method:** EPA 6020B **Dilution:** 1 **Analysis Date:** 11/26/25 05:45  
**Prep Date:** 11/24/25 09:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Barium	14.4	mg/kg	0.279	5.2301	9.70	102	75-125			
Cadmium	4.28	mg/kg	0.111	5.2301	0.0810	80.3	75-125			
Chromium	9.47	mg/kg	0.279	5.2301	5.00	91.4	75-125			
Lead	9.10	mg/kg	0.279	5.2301	3.78	106	75-125			
Selenium	4.34	mg/kg	0.279	5.2301	<0.241	80.3	75-125			
Silver	4.31	mg/kg	0.279	5.2301	<0.0345	82.3	75-125			

**MSD** CLIENT ID: Batch QC Lab ID: QC-2352166-005

**Method:** EPA 6020B **Dilution:** 1 **Analysis Date:** 11/26/25 05:47  
**Prep Date:** 11/24/25 09:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
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QA/QC Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352166

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3718901

**MSD** CLIENT ID: Batch QC Lab ID: QC-2352166-005

**Method:** EPA 6020B **Dilution:** 1 **Analysis Date:** 11/26/25 05:47  
**Prep Date:** 11/24/25 09:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Barium	13.4	mg/kg	0.282	5.3022	9.70	80.7	75-125	7.42	20	
Cadmium	4.31	mg/kg	0.113	5.3022	0.0810	79.8	75-125	0.706	20	
Chromium	9.10	mg/kg	0.282	5.3022	5.00	83.1	75-125	4.02	20	
Lead	8.85	mg/kg	0.282	5.3022	3.78	100	75-125	2.78	20	
Selenium	4.49	mg/kg	0.282	5.3022	<0.244	82.1	75-125	3.43	20	
Silver	4.33	mg/kg	0.282	5.3022	<0.0350	81.6	75-125	0.483	20	

The following samples were analyzed in this batch: HN2517794-001, HN2517794-003, HN2517794-005



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352166

**Work Order:** HN2517794  
**Date Collected:** 11/20/25 13:24  
**Date Received:** 11/22/25 08:00  
**Run ID:** 3721582

**Metals**

**MS** CLIENT ID: Batch QC Lab ID: QC-2352166-004

**Method:** EPA 6020B **Dilution:** 10 **Analysis Date:** 11/26/25 17:26  
**Prep Date:** 11/24/25 09:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	11.8	mg/kg	2.79	5.2301	3.63	161	75-125			S
Copper	12.1	mg/kg	2.79	5.2301	6.60	113	75-125			
Zinc	32.3	mg/kg	5.57	5	24.3	NC	75-125			O

**MSD** CLIENT ID: Batch QC Lab ID: QC-2352166-005

**Method:** EPA 6020B **Dilution:** 10 **Analysis Date:** 11/26/25 17:27  
**Prep Date:** 11/24/25 09:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	10.6	mg/kg	2.82	5.3022	3.63	136	75-125	11.0	20	S
Copper	10.6	mg/kg	2.82	5.3022	6.60	83.0	75-125	13.3	20	
Zinc	28.7	mg/kg	5.65	5	24.3	NC	75-125	11.9	20	O

**PDS** CLIENT ID: Batch QC Lab ID: QC-2352166-007

**Method:** EPA 6020B **Dilution:** 10 **Analysis Date:** 11/26/25 17:31  
**Prep Date:** 11/24/25 09:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	49.7	mg/kg	2.73	51.335	3.63	90.1	75-125			
Copper	50.8	mg/kg	2.73	51.335	6.60	86.9	75-125			
Zinc	69.4	mg/kg	5.47	51.335	24.3	90.7	75-125			

The following samples were analyzed in this batch: HN2517794-001, HN2517794-003, HN2517794-005

QA/QC Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352820

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3716896

**Metals**

**MB** CLIENT ID: Method Blank Lab ID: QC-2352820-001

**Method:** EPA 7471B **Dilution:** 1 **Analysis Date:** 11/25/25 16:32  
**Prep Date:** 11/25/25 08:39

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-2352820-002

**Method:** EPA 7471B **Dilution:** 1 **Analysis Date:** 11/25/25 16:34  
**Prep Date:** 11/25/25 08:39

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.168	mg/kg	0.0200	0.1665		101	80-120			

**MS** CLIENT ID: Batch QC Lab ID: QC-2352820-004

**Method:** EPA 7471B **Dilution:** 1 **Analysis Date:** 11/25/25 16:44  
**Prep Date:** 11/25/25 08:39

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.172	mg/kg	0.0215	0.1409	0.0785	78.2	75-125			

**MSD** CLIENT ID: Batch QC Lab ID: QC-2352820-005

**Method:** EPA 7471B **Dilution:** 1 **Analysis Date:** 11/25/25 16:47  
**Prep Date:** 11/25/25 08:39

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.187	mg/kg	0.0210	0.13779	0.0785	90.8	75-125	8.26	35	

The following samples were analyzed in this batch: HN2517794-001, HN2517794-003, HN2517794-005



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352162

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3716736

**Organochlorine Pesticides by GC/ECD**

**MB** CLIENT ID: Method Blank Lab ID: QC-2352162-001

**Method:** EPA 8081B **Dilution:** 1 **Analysis Date:** 11/24/25 17:51  
**Prep Date:** 11/24/25 11:03

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	43.9	µg/kg		33.33		132	53-151			
Surr: Tetrachloro-m-xylene	35.2	µg/kg		33.33		106	67-127			

**LCS** CLIENT ID: Laboratory Control Sample Lab ID: QC-2352162-002

**Method:** EPA 8081B **Dilution:** 1 **Analysis Date:** 11/24/25 18:05  
**Prep Date:** 11/24/25 11:03

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	33.4	µg/kg	10.0	33.33		100	55-141			
4,4'-DDE	34.1	µg/kg	10.0	33.33		102	55-143			
4,4'-DDT	32.4	µg/kg	10.0	33.33		97.3	50-144			
Aldrin	34.8	µg/kg	10.0	33.33		104	57-141			
alpha-BHC	33.0	µg/kg	10.0	33.33		98.9	58-144			
beta-BHC	32.9	µg/kg	10.0	33.33		98.7	55-147			
cis-Chlordane	34.4	µg/kg	10.0	33.33		103	58-142			
delta-BHC	27.4	µg/kg	10.0	33.33		82.3	59-142			
Dieldrin	34.3	µg/kg	10.0	33.33		103	59-142			
Endosulfan I	32.2	µg/kg	10.0	33.33		96.6	57-145			
Endosulfan II	33.7	µg/kg	10.0	33.33		101	58-138			
Endosulfan sulfate	32.5	µg/kg	10.0	33.33		97.4	54-136			
Endrin	33.3	µg/kg	10.0	33.33		99.9	45-150			

QA/QC Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352162

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3716736

**LCS** CLIENT ID: Laboratory Control Sample Lab ID: QC-2352162-002

**Method:** EPA 8081B **Dilution:** 1 **Analysis Date:** 11/24/25 18:05  
**Prep Date:** 11/24/25 11:03

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Endrin aldehyde	35.0	µg/kg	10.0	33.33		105	41-147			
Endrin ketone	32.4	µg/kg	10.0	33.33		97.4	54-146			
gamma-BHC (Lindane)	32.4	µg/kg	10.0	33.33		97.2	58-145			
Heptachlor	33.7	µg/kg	10.0	33.33		101	51-145			
Heptachlor epoxide	34.6	µg/kg	10.0	33.33		104	59-143			
Methoxychlor	28.0	µg/kg	10.0	33.33		83.9	43-144			
trans-Chlordane	34.2	µg/kg	10.0	33.33		103	56-145			
Surr: Decachlorobiphenyl	42.3	µg/kg		33.33		127	51-151			
Surr: Tetrachloro-m-xylene	34.3	µg/kg		33.33		103	67-127			

**MS** CLIENT ID: Batch QC Lab ID: QC-2352162-005

**Method:** EPA 8081B **Dilution:** 1 **Analysis Date:** 11/24/25 19:05  
**Prep Date:** 11/24/25 11:03

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	29.8	µg/kg	10.4	32.266	<6.19	92.4	55-141			
4,4'-DDE	31.1	µg/kg	10.4	32.266	<6.38	96.3	55-143			
4,4'-DDT	29.1	µg/kg	10.4	32.266	<6.44	90.2	50-144			
Aldrin	32.0	µg/kg	10.4	32.266	<6.29	99.1	57-141			
alpha-BHC	30.8	µg/kg	10.4	32.266	<6.37	95.6	58-144			
beta-BHC	30.2	µg/kg	10.4	32.266	<6.36	93.7	55-147			
cis-Chlordane	31.2	µg/kg	10.4	32.266	<6.47	96.6	58-142			
delta-BHC	23.4	µg/kg	10.4	32.266	<6.34	72.6	59-142			
Dieldrin	31.1	µg/kg	10.4	32.266	<6.77	96.4	59-142			
Endosulfan I	24.6	µg/kg	10.4	32.266	<6.51	76.2	57-145			
Endosulfan II	22.1	µg/kg	10.4	32.266	<6.41	68.4	58-138			
Endosulfan sulfate	18.8	µg/kg	10.4	32.266	<5.95	58.4	54-135			
Endrin	31.3	µg/kg	10.4	32.266	<7.83	97.0	45-150			
Endrin aldehyde	12.9	µg/kg	10.4	32.266	<6.14	39.9	41-147			S
Endrin ketone	22.4	µg/kg	10.4	32.266	<5.89	69.5	54-146			
gamma-BHC (Lindane)	30.9	µg/kg	10.4	32.266	<6.35	95.7	58-145			
Heptachlor	32.0	µg/kg	10.4	32.266	<6.25	99.1	51-145			
Heptachlor epoxide	31.5	µg/kg	10.4	32.266	<6.40	97.7	59-143			
Methoxychlor	17.6	µg/kg	10.4	32.266	<6.47	54.6	43-144			
trans-Chlordane	31.2	µg/kg	10.4	32.266	<6.43	96.6	56-145			
Surr: Decachlorobiphenyl	40.1	µg/kg		32.266		124	53-151			
Surr: Tetrachloro-m-xylene	32.0	µg/kg		32.266		99.3	67-127			

**MSD** CLIENT ID: Batch QC Lab ID: QC-2352162-006

**Method:** EPA 8081B **Dilution:** 1 **Analysis Date:** 11/24/25 19:20  
**Prep Date:** 11/24/25 11:03

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	31.0	µg/kg	10.5	32.713	<6.39	94.9	55-141	4.10	20	

QA/QC Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352162

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3716736

**MSD** CLIENT ID: Batch QC Lab ID: QC-2352162-006

**Method:** EPA 8081B **Dilution:** 1 **Analysis Date:** 11/24/25 19:20  
**Prep Date:** 11/24/25 11:03

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDE	32.5	µg/kg	10.5	32.713	<6.59	99.2	55-143	4.34	20	
4,4'-DDT	30.1	µg/kg	10.5	32.713	<6.65	92.1	50-144	3.46	20	
Aldrin	33.3	µg/kg	10.5	32.713	<6.50	102	57-141	4.21	20	
alpha-BHC	31.7	µg/kg	10.5	32.713	<6.58	96.9	58-144	2.73	20	
beta-BHC	30.8	µg/kg	10.5	32.713	<6.57	94.2	55-147	1.86	20	
cis-Chlordane	32.2	µg/kg	10.5	32.713	<6.68	98.4	58-142	3.27	20	
delta-BHC	24.1	µg/kg	10.5	32.713	<6.55	73.7	59-142	2.88	20	
Dieldrin	32.0	µg/kg	10.5	32.713	<6.99	97.7	59-142	2.72	20	
Endosulfan I	24.7	µg/kg	10.5	32.713	<6.72	75.4	57-145	0.255	20	
Endosulfan II	23.0	µg/kg	10.5	32.713	<6.62	70.2	58-138	3.90	20	
Endosulfan sulfate	21.4	µg/kg	10.5	32.713	<6.15	65.4	54-135	12.6	20	
Endrin	32.4	µg/kg	10.5	32.713	<8.09	99.1	45-150	3.57	20	
Endrin aldehyde	13.8	µg/kg	10.5	32.713	<6.34	42.2	41-147	6.98	20	
Endrin ketone	25.0	µg/kg	10.5	32.713	<6.08	76.6	54-146	11.0	20	
gamma-BHC (Lindane)	31.4	µg/kg	10.5	32.713	<6.56	95.9	58-145	1.59	20	
Heptachlor	32.3	µg/kg	10.5	32.713	<6.45	98.7	51-145	1.02	20	
Heptachlor epoxide	32.5	µg/kg	10.5	32.713	<6.62	99.3	59-143	2.95	20	
Methoxychlor	24.0	µg/kg	10.5	32.713	<6.69	73.4	43-144	30.7	20	R
trans-Chlordane	32.1	µg/kg	10.5	32.713	<6.64	98.2	56-145	3.02	20	
Surr: Decachlorobiphenyl	<b>40.9</b>	µg/kg		32.713		125	53-151	2.06	30	
Surr: Tetrachloro-m-xylene	<b>33.2</b>	µg/kg		32.713		101	67-127	3.47	30	

The following samples were analyzed in this batch: HN2517794-001, HN2517794-003, HN2517794-005



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352157

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3717329

**Polychlorinated Biphenyls (PCBs) by GC/ECD**

**MB** CLIENT ID: Method Blank Lab ID: QC-2352157-001

**Method:** EPA 8082A **Dilution:** 1 **Analysis Date:** 11/24/25 15:54  
**Prep Date:** 11/24/25 10:46

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	37.5	µg/kg		33.3		113	54-146			
Surr: Tetrachloro-m-xylene	34.8	µg/kg		33.3		104	58-140			

**LCS** CLIENT ID: Laboratory Control Sample Lab ID: QC-2352157-002

**Method:** EPA 8082A **Dilution:** 1 **Analysis Date:** 11/24/25 16:05  
**Prep Date:** 11/24/25 10:46

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	867	µg/kg	66.7	833		104	71-135			
Aroclor 1260	793	µg/kg	66.7	833		95.2	67-135			
Surr: Decachlorobiphenyl	36.0	µg/kg		33.3		108	54-146			
Surr: Tetrachloro-m-xylene	33.1	µg/kg		33.3		99.4	58-140			

**MS** CLIENT ID: Batch QC Lab ID: QC-2352157-005

**Method:** EPA 8082A **Dilution:** 1 **Analysis Date:** 11/24/25 16:29  
**Prep Date:** 11/24/25 10:46

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	930	µg/kg	74.9	813.25	<22.3	114	71-135			
Aroclor 1260	839	µg/kg	74.9	813.25	<18.2	103	67-135			
Surr: Decachlorobiphenyl	33.7	µg/kg		32.51		104	54-146			
Surr: Tetrachloro-m-xylene	33.4	µg/kg		32.51		103	58-140			

**MSD** CLIENT ID: Batch QC Lab ID: QC-2352157-006

**Method:** EPA 8082A **Dilution:** 1 **Analysis Date:** 11/24/25 16:41  
**Prep Date:** 11/24/25 10:46

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	953	µg/kg	76.0	825.14	<22.9	116	71-135	2.51	20	
Aroclor 1260	882	µg/kg	76.0	825.14	<18.6	107	67-135	4.93	20	
Surr: Decachlorobiphenyl	38.6	µg/kg		32.986		117	54-146	13.5	30	
Surr: Tetrachloro-m-xylene	34.5	µg/kg		32.986		105	58-140	3.14	30	

# QA/QC Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352157

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3717329

**The following samples were analyzed in this batch:** HN2517794-001, HN2517794-003, HN2517794-005



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352167

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3720536

Semivolatile Organic Compounds by GC-MS

**MB** CLIENT ID: Method Blank Lab ID: QC-2352167-001

**Method:** EPA 8270E **Dilution:** 1 **Analysis Date:** 11/25/25 19:42  
**Prep Date:** 11/24/25 11:30

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



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352167

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3720536

**MB** CLIENT ID: Method Blank Lab ID: QC-2352167-001

**Method:** EPA 8270E **Dilution:** 1 **Analysis Date:** 11/25/25 19:42  
**Prep Date:** 11/24/25 11:30

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	<b>2430</b>	µg/kg		3333		72.9	48-94			
Surr: 2-Fluorobiphenyl	<b>2560</b>	µg/kg		3333		76.8	50-103			
Surr: 2-Fluorophenol	<b>2400</b>	µg/kg		3333		71.9	43-105			
Surr: 4-Terphenyl-d14	<b>2440</b>	µg/kg		3333		73.1	55-111			
Surr: Nitrobenzene-d5	<b>2480</b>	µg/kg		3333		74.5	47-100			
Surr: Phenol-d6	<b>2480</b>	µg/kg		3333		74.3	49-110			

**LCS** CLIENT ID: Laboratory Control Sample Lab ID: QC-2352167-002

**Method:** EPA 8270E **Dilution:** 1 **Analysis Date:** 11/25/25 20:10  
**Prep Date:** 11/24/25 11:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	967	µg/kg	33.0	1333		72.6	57-101			
1,2,4,5-Tetrachlorobenzene	1040	µg/kg	333	1333		78.0	54-98			
1-Methylnaphthalene	991	µg/kg	6.67	1333		74.3	56-100			
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	919	µg/kg	33.0	1333		68.9	50-101			
2,3,4,6-Tetrachlorophenol	913	µg/kg	67.0	1333		68.5	48-103			



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352167

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3720536

**LCS** CLIENT ID: Laboratory Control Sample Lab ID: QC-2352167-002

**Method:** EPA 8270E

**Dilution:** 1

**Analysis Date:** 11/25/25 20:10

**Prep Date:** 11/24/25 11:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	995	µg/kg	33.0	1333		74.6	54-98			
2,4,6-Trichlorophenol	1010	µg/kg	33.0	1333		75.4	56-97			
2,4-Dichlorophenol	996	µg/kg	33.0	1333		74.7	54-99			
2,4-Dimethylphenol	913	µg/kg	33.0	1333		68.5	47-102			
2,4-Dinitrophenol	827	µg/kg	333	1333		62.0	10-100			
2,4-Dinitrotoluene (2,4-DNT)	966	µg/kg	33.0	1333		72.5	62-105			
2,6-Dinitrotoluene (2,6-DNT)	973	µg/kg	33.0	1333		73.0	62-103			
2-Chloronaphthalene	1070	µg/kg	6.67	1333		80.1	57-101			
2-Chlorophenol	965	µg/kg	33.0	1333		72.4	52-102			
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	963	µg/kg	33.0	1333		72.3	42-104			
2-Methylnaphthalene	993	µg/kg	6.67	1333		74.5	55-102			
2-Methylphenol (o-Cresol)	894	µg/kg	33.0	1333		67.1	54-103			
2-Nitroaniline	981	µg/kg	33.0	1333		73.6	57-103			
2-Nitrophenol	1020	µg/kg	33.0	1333		76.3	52-102			
3&4-Methylphenol	871	µg/kg	33.0	1333		65.3	56-103			
3,3'-Dichlorobenzidine	661	µg/kg	167	1333		49.6	41-91			
3-Nitroaniline	746	µg/kg	33.0	1333		56.0	35-107			
4-Bromophenyl phenyl ether (BDE-3)	1040	µg/kg	33.0	1333		77.7	63-104			
4-Chloro-3-methylphenol	909	µg/kg	33.0	1333		68.2	57-103			
4-Chloroaniline	1050	µg/kg	67.0	1333		78.9	32-99			
4-Chlorophenyl phenylether	1010	µg/kg	33.0	1333		75.4	62-100			
4-Nitroaniline	627	µg/kg	167	1333		47.0	19-124			
4-Nitrophenol	1040	µg/kg	333	1333		77.8	44-106			
Acenaphthene	1020	µg/kg	6.67	1333		76.9	60-101			
Acenaphthylene	1040	µg/kg	6.67	1333		77.9	59-101			
Acetophenone	877	µg/kg	33.0	1333		65.8	54-102			
Anthracene	1020	µg/kg	6.67	1333		76.5	63-96			
Atrazine	971	µg/kg	33.0	1333		72.9	60-110			
Benzaldehyde	257	µg/kg	67.0	1333		19.3	10-143			
Benzo(a)anthracene	1030	µg/kg	6.67	1333		77.6	66-102			
Benzo(a)pyrene	1000	µg/kg	6.67	1333		75.1	66-105			
Benzo(b)fluoranthene	1010	µg/kg	6.67	1333		76.0	67-105			
Benzo(g,h,i)perylene	1110	µg/kg	6.67	1333		83.0	59-110			
Benzo(k)fluoranthene	1000	µg/kg	6.67	1333		75.4	68-106			
bis(2-Chloroethoxy)methane	919	µg/kg	33.0	1333		68.9	54-102			
bis(2-Chloroethyl) ether	868	µg/kg	33.0	1333		65.1	51-101			
Butyl benzyl phthalate	953	µg/kg	67.0	1333		71.5	59-107			
Caprolactam	802	µg/kg	33.0	1333		60.2	49-103			
Carbazole	986	µg/kg	33.0	1333		74.0	63-103			
Chrysene	1020	µg/kg	6.67	1333		76.2	66-105			
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	1000	µg/kg	33.0	1333		75.3	63-101			
Dibenz(a,h) anthracene	1090	µg/kg	33.0	1333		82.0	61-109			
Dibenzofuran	1010	µg/kg	33.0	1333		76.1	61-101			
Diethyl phthalate	963	µg/kg	33.0	1333		72.2	63-105			



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352167

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3720536

**LCS** CLIENT ID: Laboratory Control Sample Lab ID: QC-2352167-002

**Method:** EPA 8270E **Dilution:** 1 **Analysis Date:** 11/25/25 20:10  
**Prep Date:** 11/24/25 11:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Dimethyl phthalate	972	µg/kg	33.0	1333		72.9	64-104			
Fluoranthene	1030	µg/kg	6.67	1333		77.1	66-105			
Fluorene	1030	µg/kg	6.67	1333		77.6	62-101			
Hexachlorobenzene	1030	µg/kg	33.0	1333		77.1	61-104			
Hexachlorobutadiene	1070	µg/kg	33.0	1333		80.2	52-99			
Hexachlorocyclopentadiene	1090	µg/kg	33.0	1333		81.4	39-106			
Hexachloroethane	1030	µg/kg	33.0	1333		77.1	59-99			
Indeno(1,2,3-cd) pyrene	1080	µg/kg	6.67	1333		81.2	57-114			
Isophorone	959	µg/kg	167	1333		72.0	55-101			
Methylphenol, Total	1760	µg/kg	67.0	2667		66.2	54-103			
Naphthalene	1060	µg/kg	6.67	1333		79.4	54-99			
Nitrobenzene	1000	µg/kg	167	1333		75.3	53-100			
n-Nitrosodi-n-propylamine	885	µg/kg	33.0	1333		66.4	52-104			
N-Nitrosodiphenylamine	984	µg/kg	33.0	1333		73.8	61-104			
Pentachlorophenol	905	µg/kg	33.0	1333		67.9	35-100			
Phenanthrene	1030	µg/kg	6.67	1333		77.4	64-101			
Phenol	917	µg/kg	33.0	1333		68.8	51-107			
Pyrene	939	µg/kg	6.67	1333		70.5	62-114			
Pyridine	809	µg/kg	167	1333		60.7	40-84			
Surr: 2,4,6-Tribromophenol	2520	µg/kg		3333		75.5	48-94			
Surr: 2-Fluorobiphenyl	2680	µg/kg		3333		80.3	50-103			
Surr: 2-Fluorophenol	2450	µg/kg		3333		73.6	43-105			
Surr: 4-Terphenyl-d14	2320	µg/kg		3333		69.7	55-111			
Surr: Nitrobenzene-d5	2560	µg/kg		3333		76.9	47-100			
Surr: Phenol-d6	2470	µg/kg		3333		74.1	49-110			

**MS** CLIENT ID: Batch QC Lab ID: QC-2352167-005

**Method:** EPA 8270E **Dilution:** 1 **Analysis Date:** 11/25/25 20:37  
**Prep Date:** 11/24/25 11:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	2560	µg/kg	86.0	3200.3	<13.0	79.9	57-101			
1,2,4,5-Tetrachlorobenzene	2720	µg/kg	868	3200.3	<18.5	85.0	54-98			
1-Methylnaphthalene	2600	µg/kg	17.4	3200.3	<11.5	81.2	56-100			
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	2400	µg/kg	86.0	3200.3	<18.8	75.1	50-101			
2,3,4,6-Tetrachlorophenol	2650	µg/kg	174	3200.3	<58.6	82.8	48-103			
2,4,5-Trichlorophenol	2750	µg/kg	86.0	3200.3	<47.4	85.9	54-98			
2,4,6-Trichlorophenol	2620	µg/kg	86.0	3200.3	<21.3	81.8	56-97			
2,4-Dichlorophenol	2660	µg/kg	86.0	3200.3	<43.1	83.2	54-99			
2,4-Dimethylphenol	2390	µg/kg	86.0	3200.3	<41.1	74.8	47-102			
2,4-Dinitrophenol	1650	µg/kg	868	3200.3	<585	51.5	10-100			
2,4-Dinitrotoluene (2,4-DNT)	2570	µg/kg	86.0	3200.3	<52.0	80.4	62-105			
2,6-Dinitrotoluene (2,6-DNT)	2580	µg/kg	86.0	3200.3	<20.4	80.5	62-103			
2-Chloronaphthalene	2720	µg/kg	17.4	3200.3	<11.2	85.1	57-101			



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352167

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3720536

**MS** CLIENT ID: Batch QC Lab ID: QC-2352167-005

**Method:** EPA 8270E

**Dilution:** 1

**Analysis Date:** 11/25/25 20:37

**Prep Date:** 11/24/25 11:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	
								RPD	Limit Qual
2-Chlorophenol	2510	µg/kg	86.0	3200.3	<52.4	78.5	52-102		
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	2550	µg/kg	86.0	3200.3	<66.8	79.7	42-104		
2-Methylnaphthalene	2580	µg/kg	17.4	3200.3	<8.14	80.5	55-102		
2-Methylphenol (o-Cresol)	2340	µg/kg	86.0	3200.3	<21.6	73.1	54-103		
2-Nitroaniline	2560	µg/kg	86.0	3200.3	<44.4	80.0	57-103		
2-Nitrophenol	2650	µg/kg	86.0	3200.3	<22.8	82.7	52-102		
3&4-Methylphenol	2340	µg/kg	86.0	3200.3	<43.6	73.3	56-103		
3,3'-Dichlorobenzidine	1810	µg/kg	434	3200.3	<37.4	55.9	41-91		
3-Nitroaniline	1790	µg/kg	86.0	3200.3	<46.5	56.0	35-107		
4-Bromophenyl phenyl ether (BDE-3)	2640	µg/kg	86.0	3200.3	<43.8	82.4	63-104		
4-Chloro-3-methylphenol	2540	µg/kg	86.0	3200.3	<22.8	79.2	57-103		
4-Chloroaniline	2720	µg/kg	174	3200.3	<40.7	85.0	32-99		
4-Chlorophenyl phenylether	2610	µg/kg	86.0	3200.3	<22.1	81.7	62-100		
4-Nitroaniline	1210	µg/kg	434	3200.3	<124	37.8	19-124		
4-Nitrophenol	2990	µg/kg	868	3200.3	<187	93.5	44-106		
Acenaphthene	2640	µg/kg	17.4	3200.3	<11.6	82.5	60-101		
Acenaphthylene	2690	µg/kg	17.4	3200.3	<13.9	83.9	59-101		
Acetophenone	2330	µg/kg	86.0	3200.3	<12.5	72.8	54-102		
Anthracene	2680	µg/kg	17.4	3200.3	<11.3	83.5	63-96		
Atrazine	2710	µg/kg	86.0	3200.3	<46.9	84.8	60-110		
Benzaldehyde	571	µg/kg	174	3200.3	<123	17.9	10-143		
Benzo(a)anthracene	2720	µg/kg	17.4	3200.3	69.7	83.1	66-102		
Benzo(a)pyrene	2730	µg/kg	17.4	3200.3	98.2	82.4	66-105		
Benzo(b)fluoranthene	2770	µg/kg	17.4	3200.3	143	82.5	67-105		
Benzo(g,h,i)perylene	2920	µg/kg	17.4	3200.3	82.2	88.9	59-110		
Benzo(k)fluoranthene	2730	µg/kg	17.4	3200.3	42.9	83.9	68-106		
bis(2-Chloroethoxy)methane	2400	µg/kg	86.0	3200.3	<50.7	75.1	54-102		
bis(2-Chloroethyl) ether	2360	µg/kg	86.0	3200.3	<22.7	73.9	51-101		
Butyl benzyl phthalate	2610	µg/kg	174	3200.3	<100	80.6	59-107		
Caprolactam	2330	µg/kg	86.0	3200.3	<72.2	72.9	49-103		
Carbazole	2700	µg/kg	86.0	3200.3	<23.6	84.1	63-103		
Chrysene	2720	µg/kg	17.4	3200.3	73.2	83.0	66-105		
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	2660	µg/kg	86.0	3200.3	<66.2	81.4	63-101		
Dibenz(a,h) anthracene	2840	µg/kg	86.0	3200.3	21.4	88.0	61-109		
Dibenzofuran	2670	µg/kg	86.0	3200.3	<11.8	83.4	61-101		
Diethyl phthalate	2600	µg/kg	86.0	3200.3	<27.2	81.2	63-105		
Dimethyl phthalate	2610	µg/kg	86.0	3200.3	<15.6	81.6	64-104		
Fluoranthene	2860	µg/kg	17.4	3200.3	134	85.4	66-105		
Fluorene	2710	µg/kg	17.4	3200.3	<11.6	84.8	62-101		
Hexachlorobenzene	2660	µg/kg	86.0	3200.3	<23.3	83.0	61-104		
Hexachlorobutadiene	2740	µg/kg	86.0	3200.3	<18.9	85.6	52-99		
Hexachlorocyclopentadiene	2770	µg/kg	86.0	3200.3	<78.3	86.6	39-106		
Hexachloroethane	2570	µg/kg	86.0	3200.3	<33.1	80.3	59-99		
Indeno(1,2,3-cd) pyrene	2920	µg/kg	17.4	3200.3	85.7	88.8	57-114		



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352167

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3720536

**MS** CLIENT ID: Batch QC Lab ID: QC-2352167-005

**Method:** EPA 8270E **Dilution:** 1 **Analysis Date:** 11/25/25 20:37  
**Prep Date:** 11/24/25 11:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Isophorone	2520	µg/kg	434	3200.3	<15.6	78.8	55-101			
Methylphenol, Total	4680	µg/kg	86.0	6403	<21.6	73.2	54-103			
Naphthalene	2750	µg/kg	17.4	3200.3	57.2	84.3	54-99			
Nitrobenzene	2630	µg/kg	434	3200.3	<26.9	82.2	53-100			
n-Nitrosodi-n-propylamine	2300	µg/kg	86.0	3200.3	<13.2	72.0	52-104			
N-Nitrosodiphenylamine	2630	µg/kg	86.0	3200.3	<46.3	82.1	61-104			
Pentachlorophenol	2590	µg/kg	86.0	3200.3	<63.6	80.8	35-100			
Phenanthrene	2750	µg/kg	17.4	3200.3	39.3	84.7	64-101			
Phenol	2370	µg/kg	86.0	3200.3	<40.2	74.1	51-107			
Pyrene	2690	µg/kg	17.4	3200.3	123	80.6	52-114			
Pyridine	2380	µg/kg	434	3200.3	<158	74.4	40-84			
Surr: 2,4,6-Tribromophenol	6690	µg/kg		8001.9		83.6	48-94			
Surr: 2-Fluorobiphenyl	6580	µg/kg		8001.9		82.3	50-103			
Surr: 2-Fluorophenol	6260	µg/kg		8001.9		78.3	43-105			
Surr: 4-Terphenyl-d14	6380	µg/kg		8001.9		79.7	55-111			
Surr: Nitrobenzene-d5	6500	µg/kg		8001.9		81.2	47-100			
Surr: Phenol-d6	6340	µg/kg		8001.9		79.2	49-110			

**MSD** CLIENT ID: Batch QC Lab ID: QC-2352167-006

**Method:** EPA 8270E **Dilution:** 1 **Analysis Date:** 11/25/25 21:04  
**Prep Date:** 11/24/25 11:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	2400	µg/kg	83.5	3107.7	<12.6	77.2	57-101	6.37	30	
1,2,4,5-Tetrachlorobenzene	2560	µg/kg	843	3107.7	<17.9	82.5	54-98	5.92	30	
1-Methylnaphthalene	2480	µg/kg	16.9	3107.7	<11.2	79.8	56-100	4.67	30	
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	2290	µg/kg	83.5	3107.7	<18.2	73.8	50-101	4.75	30	
2,3,4,6-Tetrachlorophenol	2290	µg/kg	169	3107.7	<56.9	73.8	48-103	14.5	30	
2,4,5-Trichlorophenol	2580	µg/kg	83.5	3107.7	<46.0	83.0	54-98	6.31	30	
2,4,6-Trichlorophenol	2630	µg/kg	83.5	3107.7	<20.7	84.5	56-97	0.372	30	
2,4-Dichlorophenol	2530	µg/kg	83.5	3107.7	<41.8	81.3	54-99	5.25	30	
2,4-Dimethylphenol	2340	µg/kg	83.5	3107.7	<40.0	75.4	47-102	2.20	30	
2,4-Dinitrophenol	1110	µg/kg	843	3107.7	<568	35.7	10-100	39.0	30	R
2,4-Dinitrotoluene (2,4-DNT)	2300	µg/kg	83.5	3107.7	<50.5	74.0	62-105	11.2	30	
2,6-Dinitrotoluene (2,6-DNT)	2430	µg/kg	83.5	3107.7	<19.8	78.2	62-103	5.90	30	
2-Chloronaphthalene	2660	µg/kg	16.9	3107.7	<10.9	85.7	57-101	2.23	30	
2-Chlorophenol	2410	µg/kg	83.5	3107.7	<50.8	77.5	52-102	4.22	30	
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	2420	µg/kg	83.5	3107.7	<64.9	78.0	42-104	5.09	30	
2-Methylnaphthalene	2430	µg/kg	16.9	3107.7	<7.90	78.1	55-102	6.03	30	
2-Methylphenol (o-Cresol)	2280	µg/kg	83.5	3107.7	<21.0	73.5	54-103	2.46	30	
2-Nitroaniline	2400	µg/kg	83.5	3107.7	<43.2	77.3	57-103	6.43	30	
2-Nitrophenol	2550	µg/kg	83.5	3107.7	<22.1	82.1	52-102	3.66	30	
3&4-Methylphenol	2270	µg/kg	83.5	3107.7	<42.4	73.2	56-103	3.07	30	
3,3'-Dichlorobenzidine	1800	µg/kg	422	3107.7	<36.3	57.2	41-91	0.754	30	



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352167

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3720536

**MSD** CLIENT ID: Batch QC Lab ID: QC-2352167-006

**Method:** EPA 8270E

**Dilution:** 1

**Analysis Date:** 11/25/25 21:04

**Prep Date:** 11/24/25 11:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
3-Nitroaniline	1690	µg/kg	83.5	3107.7	<45.1	54.5	35-107	5.65	30	
4-Bromophenyl phenyl ether (BDE-3)	2630	µg/kg	83.5	3107.7	<42.6	84.7	63-104	0.184	30	
4-Chloro-3-methylphenol	2370	µg/kg	83.5	3107.7	<22.1	76.4	57-103	6.53	30	
4-Chloroaniline	2470	µg/kg	169	3107.7	<39.5	79.4	32-99	9.74	30	
4-Chlorophenyl phenylether	2500	µg/kg	83.5	3107.7	<21.5	80.4	62-100	4.54	30	
4-Nitroaniline	982	µg/kg	422	3107.7	<121	31.6	19-124	20.8	30	
4-Nitrophenol	2590	µg/kg	843	3107.7	<182	83.5	44-106	14.3	30	
Acenaphthene	2540	µg/kg	16.9	3107.7	<11.2	81.6	60-101	3.97	30	
Acenaphthylene	2580	µg/kg	16.9	3107.7	<13.5	83.2	59-101	3.83	30	
Acetophenone	2230	µg/kg	83.5	3107.7	<12.2	71.6	54-102	4.60	30	
Anthracene	2550	µg/kg	16.9	3107.7	<11.0	81.8	63-96	4.93	30	
Atrazine	2240	µg/kg	83.5	3107.7	<45.5	72.2	60-110	19.0	30	
Benzaldehyde	560	µg/kg	169	3107.7	<119	18.0	10-143	2.10	30	
Benzo(a)anthracene	2660	µg/kg	16.9	3107.7	69.7	83.5	66-102	2.41	30	
Benzo(a)pyrene	2680	µg/kg	16.9	3107.7	98.2	83.4	66-105	1.65	30	
Benzo(b)fluoranthene	2810	µg/kg	16.9	3107.7	143	86.3	67-105	1.58	30	
Benzo(g,h,i)perylene	2800	µg/kg	16.9	3107.7	82.2	87.7	59-110	4.15	30	
Benzo(k)fluoranthene	2580	µg/kg	16.9	3107.7	42.9	81.9	68-106	5.37	30	
bis(2-Chloroethoxy)methane	2420	µg/kg	83.5	3107.7	<49.2	77.9	54-102	0.724	30	
bis(2-Chloroethyl) ether	2180	µg/kg	83.5	3107.7	<22.0	70.2	51-101	8.07	30	
Butyl benzyl phthalate	2370	µg/kg	169	3107.7	<97.3	75.4	59-107	9.59	30	
Caprolactam	2080	µg/kg	83.5	3107.7	<70.1	66.9	49-103	11.5	30	
Carbazole	2450	µg/kg	83.5	3107.7	<22.9	78.4	63-103	9.92	30	
Chrysene	2650	µg/kg	16.9	3107.7	73.2	83.1	66-105	2.82	30	
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	2490	µg/kg	83.5	3107.7	<64.3	78.4	63-101	6.55	30	
Dibenz(a,h) anthracene	2700	µg/kg	83.5	3107.7	21.4	86.4	61-109	4.76	30	
Dibenzofuran	2530	µg/kg	83.5	3107.7	<11.4	81.4	61-101	5.42	30	
Diethyl phthalate	2330	µg/kg	83.5	3107.7	<26.4	75.1	63-105	10.8	30	
Dimethyl phthalate	2440	µg/kg	83.5	3107.7	<15.2	78.4	64-104	6.87	30	
Fluoranthene	2530	µg/kg	16.9	3107.7	134	77.3	66-105	12.3	30	
Fluorene	2490	µg/kg	16.9	3107.7	<11.3	80.1	62-101	8.57	30	
Hexachlorobenzene	2610	µg/kg	83.5	3107.7	<22.6	84.0	61-104	1.74	30	
Hexachlorobutadiene	2690	µg/kg	83.5	3107.7	<18.3	86.6	52-99	1.72	30	
Hexachlorocyclopentadiene	2640	µg/kg	83.5	3107.7	<76.0	85.0	39-106	4.80	30	
Hexachloroethane	2410	µg/kg	83.5	3107.7	<32.2	77.5	59-99	6.42	30	
Indeno(1,2,3-cd) pyrene	2790	µg/kg	16.9	3107.7	85.7	87.1	57-114	4.76	30	
Isophorone	2440	µg/kg	422	3107.7	<15.2	78.4	55-101	3.51	30	
Methylphenol, Total	4560	µg/kg	83.5	6217.7	<21.0	73.3	54-103	2.77	30	
Naphthalene	2650	µg/kg	16.9	3107.7	57.2	83.7	54-99	3.52	30	
Nitrobenzene	2550	µg/kg	422	3107.7	<26.1	82.0	53-100	3.18	30	
n-Nitrosodi-n-propylamine	2200	µg/kg	83.5	3107.7	<12.8	70.9	52-104	4.55	30	
N-Nitrosodiphenylamine	2610	µg/kg	83.5	3107.7	<45.0	83.9	61-104	0.828	30	
Pentachlorophenol	2450	µg/kg	83.5	3107.7	<61.7	79.0	35-100	5.25	30	
Phenanthrene	2670	µg/kg	16.9	3107.7	39.3	84.7	64-101	2.88	30	
Phenol	2290	µg/kg	83.5	3107.7	<39.0	73.8	51-107	3.34	30	

QA/QC Report



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352167

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3720536

**MSD** CLIENT ID: Batch QC Lab ID: QC-2352167-006

Method: EPA 8270E Dilution: 1 Analysis Date: 11/25/25 21:04  
 Prep Date: 11/24/25 11:30

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Pyrene	2490	µg/kg	16.9	3107.7	123	76.3	52-114	8.05	30	
Pyridine	2170	µg/kg	422	3107.7	<153	69.8	40-84	9.32	30	
Surr: 2,4,6-Tribromophenol	<b>6650</b>	µg/kg		7770.3		85.5	48-94	0.690	30	
Surr: 2-Fluorobiphenyl	<b>6610</b>	µg/kg		7770.3		85.0	50-103	0.387	30	
Surr: 2-Fluorophenol	<b>5900</b>	µg/kg		7770.3		76.0	43-105	5.89	30	
Surr: 4-Terphenyl-d14	<b>5820</b>	µg/kg		7770.3		74.9	55-111	9.09	30	
Surr: Nitrobenzene-d5	<b>6240</b>	µg/kg		7770.3		80.3	47-100	4.10	30	
Surr: Phenol-d6	<b>6160</b>	µg/kg		7770.3		79.3	49-110	2.89	30	

The following samples were analyzed in this batch: HN2517794-001, HN2517794-003, HN2517794-005



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352429

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3732201

**Volatile Organic Compounds by GC-MS**

**MB** CLIENT ID: Method Blank Lab ID: QC-2352429-001

**Method:** EPA 8260D **Dilution:** 1 **Analysis Date:** 11/26/25 13:55

**Prep Date:** 11/24/25 16:41

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



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352429

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3732201

**MB** CLIENT ID: Method Blank Lab ID: QC-2352429-001

**Method:** EPA 8260D **Dilution:** 1 **Analysis Date:** 11/26/25 13:55  
**Prep Date:** 11/24/25 16:41

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	1000	µg/kg		1000		100	80-120			
Surr: 4-Bromofluorobenzene	1060	µg/kg		1000		106	80-120			
Surr: Dibromofluoromethane	948	µg/kg		1000		94.8	72-120			
Surr: Toluene-d8	980	µg/kg		1000		98.0	80-120			

**LCS** CLIENT ID: Laboratory Control Sample Lab ID: QC-2352429-002

**Method:** EPA 8260D **Dilution:** 1 **Analysis Date:** 11/26/25 13:06  
**Prep Date:** 11/24/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	937	µg/kg	30.0	1000		93.7	75-121			
1,1,2,2-Tetrachloroethane	1030	µg/kg	30.0	1000		103	79-125			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	836	µg/kg	30.0	1000		83.6	62-129			
1,1,2-Trichloroethane	929	µg/kg	30.0	1000		92.9	80-123			
1,1-Dichloroethane	948	µg/kg	30.0	1000		94.8	74-124			
1,1-Dichloroethylene	896	µg/kg	30.0	1000		89.6	68-131			
1,2,3-Trichlorobenzene	908	µg/kg	100	1000		90.8	60-135			
1,2,3-Trichloropropane	1040	µg/kg	30.0	1000		104	77-121			
1,2,4-Trichlorobenzene	872	µg/kg	100	1000		87.2	63-130			
1,2,4-Trimethylbenzene	950	µg/kg	30.0	1000		95.0	64-126			
1,2-Dibromo-3-chloropropane (DBCP)	719	µg/kg	100	1000		71.9	55-135			
1,2-Dibromoethane (EDB, Ethylene dibromide)	1070	µg/kg	30.0	1000		107	63-155			
1,2-Dichlorobenzene (o-Dichlorobenzene)	946	µg/kg	30.0	1000		94.6	77-122			



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352429

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3732201

**LCS**      **CLIENT ID: Laboratory Control Sample**      **Lab ID: QC-2352429-002**

**Method:** EPA 8260D

**Dilution:** 1

**Analysis Date:** 11/26/25 13:06

**Prep Date:** 11/24/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,2-Dichloroethane (Ethylene dichloride)	908	µg/kg	100	1000		90.8	70-130			
1,2-Dichloropropane	965	µg/kg	30.0	1000		96.5	71-130			
1,3,5-Trimethylbenzene	1030	µg/kg	100	1000		103	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	936	µg/kg	30.0	1000		93.6	78-121			
1,3-Dichloropropene	1670	µg/kg	60.0	2000		83.4	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	950	µg/kg	30.0	1000		95.0	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	810	µg/kg	200	1000		81.0	47-164			
2-Hexanone	1040	µg/kg	30.0	1000		104	70-137			
4-Methyl-2-pentanone (MIBK)	1180	µg/kg	30.0	1000		118	57-200			
Acetone	940	µg/kg	100	1000		94.0	52-190			
Benzene	913	µg/kg	30.0	1000		91.3	78-122			
Bromochloromethane	910	µg/kg	30.0	1000		91.0	68-130			
Bromodichloromethane	956	µg/kg	30.0	1000		95.6	75-125			
Bromoform	808	µg/kg	30.0	1000		80.8	59-120			
Carbon disulfide	882	µg/kg	30.0	1000		88.2	60-163			
Carbon tetrachloride	852	µg/kg	30.0	1000		85.2	69-123			
Chlorobenzene	915	µg/kg	30.0	1000		91.5	79-120			
Chlorodibromomethane	794	µg/kg	30.0	1000		79.4	57-123			
Chloroethane (Ethyl chloride)	1190	µg/kg	100	1000		119	38-132			
Chloroform	926	µg/kg	30.0	1000		92.6	72-122			
cis-1,2-Dichloroethylene	914	µg/kg	30.0	1000		91.4	74-125			
cis-1,3-Dichloropropene	868	µg/kg	30.0	1000		86.8	62-124			
Dichlorodifluoromethane (Freon-12)	479	µg/kg	100	1000		47.9	28-137			
Ethylbenzene	972	µg/kg	30.0	1000		97.2	75-121			
Isopropylbenzene	1010	µg/kg	30.0	1000		101	74-121			
m+p-Xylene	2010	µg/kg	60.0	2000		101	67-129			
Methyl acetate	905	µg/kg	250	1000		90.5	61-125			
Methyl bromide (Bromomethane)	1140	µg/kg	100	1000		114	31-169			
Methyl chloride (Chloromethane)	604	µg/kg	100	1000		60.4	24-119			
Methyl tert-butyl ether (MTBE)	948	µg/kg	30.0	1000		94.8	79-139			
Methylene chloride (Dichloromethane)	917	µg/kg	250	1000		91.7	62-135			
o-Xylene	1010	µg/kg	30.0	1000		101	75-120			
Styrene	1040	µg/kg	30.0	1000		104	74-126			
Tetrachloroethylene (Perchloroethylene)	968	µg/kg	30.0	1000		96.8	76-128			
Toluene	915	µg/kg	30.0	1000		91.5	76-120			
Total Xylene	3020	µg/kg	90.0	3000		101	67-129			
trans-1,2-Dichloroethylene	978	µg/kg	30.0	1000		97.8	72-127			
trans-1,3-Dichloropropylene	800	µg/kg	30.0	1000		80.0	66-120			
Trichloroethene (Trichloroethylene)	1010	µg/kg	30.0	1000		101	75-122			
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	660	µg/kg	30.0	1000		66.0	51-115			
Vinyl chloride (Chloroethene)	644	µg/kg	30.0	1000		64.4	43-128			



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352429

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3732201

**LCS** CLIENT ID: Laboratory Control Sample Lab ID: QC-2352429-002

**Method:** EPA 8260D **Dilution:** 1 **Analysis Date:** 11/26/25 13:06  
**Prep Date:** 11/24/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 1,2-Dichloroethane-d4	1030	µg/kg		1000		103	80-120			
Surr: 4-Bromofluorobenzene	1060	µg/kg		1000		106	80-120			
Surr: Dibromofluoromethane	1010	µg/kg		1000		101	72-120			
Surr: Toluene-d8	1020	µg/kg		1000		102	80-120			

**MS** CLIENT ID: Batch QC Lab ID: QC-2352429-005

**Method:** EPA 8260D **Dilution:** 1 **Analysis Date:** 11/26/25 19:53  
**Prep Date:** 11/24/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1050	µg/kg	38.1	1053.7	<14.3	99.4	75-121			
1,1,2,2-Tetrachloroethane	908	µg/kg	38.1	1053.7	<14.0	86.2	79-125			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1240	µg/kg	38.1	1053.7	<20.0	118	62-129			
1,1,2-Trichloroethane	1000	µg/kg	38.1	1053.7	<13.4	95.4	80-123			
1,1-Dichloroethane	1190	µg/kg	38.1	1053.7	<11.5	113	74-124			
1,1-Dichloroethylene	1220	µg/kg	38.1	1053.7	<10.2	116	68-131			
1,2,3-Trichlorobenzene	953	µg/kg	127	1053.7	<37.9	90.4	60-135			
1,2,3-Trichloropropane	1060	µg/kg	38.1	1053.7	<13.2	101	77-121			
1,2,4-Trichlorobenzene	844	µg/kg	127	1053.7	<35.8	80.0	63-130			
1,2,4-Trimethylbenzene	1160	µg/kg	38.1	1053.7	<23.2	110	64-126			
1,2-Dibromo-3-chloropropane (DBCP)	440	µg/kg	127	1053.7	<29.1	41.8	55-135			S
1,2-Dibromoethane (EDB, Ethylene dibromide)	1040	µg/kg	38.1	1053.7	<18.6	99.0	63-155			
1,2-Dichlorobenzene (o-Dichlorobenzene)	1040	µg/kg	38.1	1053.7	<12.0	98.2	77-122			
1,2-Dichloroethane (Ethylene dichloride)	1090	µg/kg	127	1053.7	<27.7	104	70-130			
1,2-Dichloropropane	1150	µg/kg	38.1	1053.7	<23.3	109	71-130			
1,3,5-Trimethylbenzene	1230	µg/kg	127	1053.7	<22.3	116	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	1030	µg/kg	38.1	1053.7	<21.8	98.2	78-121			
1,3-Dichloropropene	1530	µg/kg	76.2	2107.5	<17.7	72.7	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	1040	µg/kg	38.1	1053.7	<25.7	98.5	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	1920	µg/kg	254	1053.7	<75.2	182	47-164			S
2-Hexanone	1550	µg/kg	38.1	1053.7	<15.7	147	70-137			S
4-Methyl-2-pentanone (MIBK)	1290	µg/kg	38.1	1053.7	<29.5	122	57-200			
Acetone	2650	µg/kg	127	1053.7	<93.8	252	52-190			S
Benzene	1190	µg/kg	38.1	1053.7	<15.3	113	78-122			
Bromochloromethane	1070	µg/kg	38.1	1053.7	<16.1	102	68-130			
Bromodichloromethane	861	µg/kg	38.1	1053.7	<17.7	81.8	75-125			
Bromoform	650	µg/kg	38.1	1053.7	<13.3	61.7	59-120			
Carbon disulfide	990	µg/kg	38.1	1053.7	<16.4	94.0	60-163			
Carbon tetrachloride	1050	µg/kg	38.1	1053.7	<12.4	99.8	69-123			
Chlorobenzene	1040	µg/kg	38.1	1053.7	<10.5	98.6	79-120			



**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352429

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3732201

**MS** CLIENT ID: Batch QC Lab ID: QC-2352429-005

**Method:** EPA 8260D **Dilution:** 1 **Analysis Date:** 11/26/25 19:53  
**Prep Date:** 11/24/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chlorodibromomethane	611	µg/kg	38.1	1053.7	<17.8	58.0	57-123			
Chloroethane (Ethyl chloride)	1330	µg/kg	127	1053.7	<88.5	127	38-132			
Chloroform	1060	µg/kg	38.1	1053.7	<11.6	101	72-122			
cis-1,2-Dichloroethylene	1130	µg/kg	38.1	1053.7	<20.3	107	74-125			
cis-1,3-Dichloropropene	832	µg/kg	38.1	1053.7	<23.8	79.0	62-124			
Dichlorodifluoromethane (Freon-12)	595	µg/kg	127	1053.7	<38.3	56.4	28-137			
Ethylbenzene	1140	µg/kg	38.1	1053.7	<22.4	108	75-121			
Isopropylbenzene	1200	µg/kg	38.1	1053.7	<20.0	114	74-121			
m+p-Xylene	2280	µg/kg	76.2	2107.5	<42.1	108	67-129			
Methyl acetate	1610	µg/kg	318	1053.7	<37.9	152	61-125			S
Methyl bromide (Bromomethane)	1330	µg/kg	127	1053.7	<60.5	127	31-169			
Methyl chloride (Chloromethane)	864	µg/kg	127	1053.7	<86.4	82.0	24-119			
Methyl tert-butyl ether (MTBE)	1170	µg/kg	38.1	1053.7	<23.1	111	79-139			
Methylene chloride (Dichloromethane)	1140	µg/kg	318	1053.7	<83.9	109	62-135			
o-Xylene	1170	µg/kg	38.1	1053.7	<12.2	111	75-120			
Styrene	1190	µg/kg	38.1	1053.7	<12.5	113	74-126			
Tetrachloroethylene (Perchloroethylene)	1910	µg/kg	38.1	1053.7	<19.0	181	76-128			S
Toluene	1050	µg/kg	38.1	1053.7	<26.1	99.7	76-120			
Total Xylene	3440	µg/kg	114	3161.2	<12.2	109	67-129			
trans-1,2-Dichloroethylene	1270	µg/kg	38.1	1053.7	<26.1	121	72-127			
trans-1,3-Dichloropropylene	699	µg/kg	38.1	1053.7	<17.7	66.4	66-120			
Trichloroethene (Trichloroethylene)	1250	µg/kg	38.1	1053.7	<14.2	118	75-122			
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	2470	µg/kg	38.1	1053.7	<16.2	234	51-115			S
Vinyl chloride (Chloroethene)	932	µg/kg	38.1	1053.7	<21.0	88.4	43-128			
Surr: 1,2-Dichloroethane-d4	1110	µg/kg		1053.7		105	80-120			
Surr: 4-Bromofluorobenzene	1090	µg/kg		1053.7		103	80-120			
Surr: Dibromofluoromethane	1000	µg/kg		1053.7		95.1	72-120			
Surr: Toluene-d8	1010	µg/kg		1053.7		95.8	80-120			

**MSD** CLIENT ID: Batch QC Lab ID: QC-2352429-006

**Method:** EPA 8260D **Dilution:** 1 **Analysis Date:** 11/26/25 20:08  
**Prep Date:** 11/24/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1030	µg/kg	38.1	1053.7	<14.3	97.4	75-121	2.13	30	
1,1,2,2-Tetrachloroethane	964	µg/kg	38.1	1053.7	<14.0	91.5	79-125	6.02	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1300	µg/kg	38.1	1053.7	<20.0	124	62-129	4.76	30	
1,1,2-Trichloroethane	1070	µg/kg	38.1	1053.7	<13.4	101	80-123	5.95	30	
1,1-Dichloroethane	1190	µg/kg	38.1	1053.7	<11.5	113	74-124	0.0883	30	
1,1-Dichloroethylene	1380	µg/kg	38.1	1053.7	<10.2	131	68-131	11.9	30	
1,2,3-Trichlorobenzene	960	µg/kg	127	1053.7	<37.9	91.2	60-135	0.771	30	
1,2,3-Trichloropropane	1090	µg/kg	38.1	1053.7	<13.2	103	77-121	2.59	30	
1,2,4-Trichlorobenzene	925	µg/kg	127	1053.7	<35.8	87.8	63-130	9.18	30	





**Client:** The Mannik & Smith Group, Inc.  
**Project:** 5928 Dubois  
**Matrix:** SOIL/SOLID  
**QC Lot:** 2352429

**Work Order:** HN2517794  
**Date Collected:** NA  
**Date Received:** NA  
**Run ID:** 3732201

**MSD** CLIENT ID: Batch QC Lab ID: QC-2352429-006

**Method:** EPA 8260D **Dilution:** 1 **Analysis Date:** 11/26/25 20:08  
**Prep Date:** 11/24/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
trans-1,2-Dichloroethylene	1270	µg/kg	38.1	1053.7	<26.1	120	72-127	0.457	30	
trans-1,3-Dichloropropylene	764	µg/kg	38.1	1053.7	<17.7	72.5	66-120	8.86	30	
Trichloroethene (Trichloroethylene)	1280	µg/kg	38.1	1053.7	<14.2	122	75-122	2.67	30	
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	2170	µg/kg	38.1	1053.7	<16.2	206	51-115	12.9	30	S
Vinyl chloride (Chloroethene)	894	µg/kg	38.1	1053.7	<21.0	84.8	43-128	4.15	30	
Surr: 1,2-Dichloroethane-d4	<b>1100</b>	µg/kg		1053.7		104	80-120	0.907	30	
Surr: 4-Bromofluorobenzene	<b>1110</b>	µg/kg		1053.7		105	80-120	1.97	30	
Surr: Dibromofluoromethane	<b>1020</b>	µg/kg		1053.7		97.0	72-120	2.03	30	
Surr: Toluene-d8	<b>1030</b>	µg/kg		1053.7		97.7	80-120	2.02	30	

The following samples were analyzed in this batch: HN2517794-001, HN2517794-003, HN2517794-005