

DRAFT

FILL MATERIAL SAMPLING REPORT

**3751 NORTHWESTERN STREET
DETROIT, WAYNE COUNTY, MICHIGAN 48206**



**NOVEMBER 10, 2025
REVISED DECEMBER 12, 2025**

PREPARED FOR:

THE CITY OF DETROIT DEMOLITION DEPARTMENT

1301 THIRD STREET, SUITE 606

DETROIT, MICHIGAN 48226



FILL MATERIAL SAMPLING REPORT

**3751 NORTHWESTERN
DETROIT, WAYNE COUNTY, MICHIGAN 48206**

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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 3751 Northwestern 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); semivolatile 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 3751 SB01, 3751 SB02, and 3751 SB03 generally consisted of a mix of clay, sand, silt, gravel, concrete, brick, and asphalt debris 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 0.3 to 42.9 parts per million (ppm). There were no visual (staining) and/or olfactory (e.g., petroleum-like odors) indications of contamination, however, coal debris were observed in 3751 SB02 during soil sampling activities.
- Concentrations of arsenic, mercury, and chromium (Total) were detected in soil samples 3751 SB01 (5-6'), 3751 SB02 (1-2'), and/or 3751 SB03 (3-4') in excess of their respective Part 201 drinking water protection criteria (DWPC), groundwater surface water interface protection criteria (GSIPC), and/or direct contact criteria (DCC).
- Concentrations of 1,2,4-trimethylbenzene, 1-methylnaphthalene, 2-methylnaphthalene, 4,4-DDE, 4,4-DDT, acetone, anthracene, barium, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, cadmium, chloride, chrysene, copper, fluoranthene, indeno(1,2,3-cd)pyrene, lead, methyl acetate, phenanthrene, pyrene, selenium, total xylenes, and zinc were detected in soil samples 3751 SB01 (5-6'), 3751 SB02 (1-2'), and/or 3751 SB03 (3-4') at concentrations above laboratory method detection limits; however, detected concentrations were below their respective Part 201 GRCC and/or Statewide Default Background Levels.
- Toxicity Characteristic Leaching Procedure (TCLP) laboratory analytical results revealed that concentrations of arsenic, chromium, and mercury were not in excess of 40 C.F.R. § 261.24 Title 40 - *Protection of Environment, Chapter I - Environmental Protection Agency, Subchapter I - Solid Wastes, Part 261- Identification and Listing of Hazardous Waste, Subpart C - Characteristics of Hazardous Waste*.
- PCBs 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 DCC 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.

DRAFT

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1.0 INTRODUCTION

The Mannik & Smith Group, Inc. (MSG) was retained by the City of Detroit (COD) to conduct sampling and analysis of fill materials at the property commonly addressed as 3751 Northwestern 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 August 8, 2025, October 7, 2025, and October 28, 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 (3) onsite soil borings to a maximum depth of six feet below ground surface (bgs) utilizing a direct push drill rig at the locations depicted on Figure 2.
- Collected one (1) discrete soil sample for laboratory analysis from each soil boring at a depth of 1-2 feet bgs, 3-4 feet bgs, or 5-6 feet bgs, depending on the soil boring.
- Submitted soil samples to an independent analytical laboratory for chemical analysis.
- Prepared this report summarizing the activities and results of this work.

Per the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025, sample analyses included volatile organic compounds (VOCs); semivolatile 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 August 8, 2025, October 7, 2025, and October 28, 2025. Daily field activity reports prepared by MSG are presented in *Appendix B, Daily Field Reports*.

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) initial soil borings, designated 3751 SB01, 3751 SB02, and 3751 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 Toxicity Characteristic Leaching Procedure (TCLP) Soil Sample Collection

On October 7, 2025, MSG mobilized to the Site to collect an additional soil sample based on request from the COD. Sample location and analyte(s) were based on the laboratory results of the initial soil investigation. MSG personnel advanced one soil boring in the immediate vicinity of the soil boring location that exhibited the highest laboratory result(s) in excess of Part 201 GRCC. Soils were continuously profiled from the ground surface to the termination depth of six feet bgs utilizing a direct push drill rig. These soils were homogenized in a stainless-steel bowl (or equivalent) to produce a single, composite soil sample. The composite soil sample was placed into unpreserved laboratory-supplied sample containers, as appropriate for the associated laboratory analyses.

The composite soil sample was collected to create a single, representative sample to provide a laboratory result that includes the overlying and/or underlying soils in the area of concern to comprehensively represent the backfill soils that may be removed.

On October 28, 2025, MSG mobilized to the Site to collect an additional soil sample based on request from the COD in order to fulfill waste characterization parameters required at a Type II landfill. Sample location and analyte(s) were based on the laboratory results of the initial soil sampling event, as compared to 40 C.F.R. §

261.24 Title 40 - Protection of Environment, Chapter I - Environmental Protection Agency, Subchapter I - Solid Wastes, Part 261 - Identification and Listing of Hazardous Waste, Subpart C - Characteristics of Hazardous Waste. Soils were continuously profiled at the supplemental soil boring locations from the ground surface to the termination depth using a 5-foot long, closed-piston Macro-Core® sampling device. When warranted, 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.

3.4 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.

3.5 Analytical Methods

A total of four (4) soil samples, designated 3751 SB01 (5-6'), 3751 SB02 (1-2'), 3751 SB03 (3-4'), and 3751 Northwestern SB01 (5-6')-R and one (1) composite soil sample designated 3751 Northwestern SB01 TCLP 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, and individual TCLP analysis:

- 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.

3.6 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 August 8, 2025, October 7, 2025, and October 28, 2025.

4.1 Site Geology and Hydrogeology

The stratigraphy encountered during soil boring advancement of 3751 SB01, 3751 SB02, and 3751 SB03 generally consisted of a mix of clay, sand, silt, gravel, concrete, brick, and asphalt debris to six feet bgs, the maximum depth explored for this investigation. Field PID readings of the recovered soil cores ranged from

0.3 to 42.9 ppm. There were no visual (staining) and/or olfactory (e.g., petroleum-like odors) indications of contamination, however, coal debris were observed in 3751 SB02 during soil sampling activities.

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

4.2 Soil Sample Analytical Results

Four (4) soil samples, designated 3751 SB01 (5-6'), 3751 SB02 (1-2'), 3751 SB03 (3-4'), and 3751 Northwestern SB01 (5-6')-R were collected from the Site and submitted to ALS for laboratory analysis of VOCs, SVOCs, PCBs, Michigan 10 Metals, chloride, herbicides, and/or 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 ¹)	Maximum Detected Concentration (µg/kg)
Arsenic	7440-38-2	3751 SB01 (5-6') 3751 SB02 (1-2') 3751 SB03 (3-4')	DWPC ² / 4,600 GSIPC ³ / 4,600 DCC ⁴ / 7,600	14,800
Chromium (Total)	7440-47-3	3751 SB01 (5-6') 3751 SB03 (3-4')	GSIPC / 3,300	28,400
Mercury (B,Z)	7439-97-6	3751 SB01 (5-6')	GSIPC / 50 (M); 1.2	481

¹µg/kg – micrograms per kilogram;

²DWPC – Drinking Water Protection Criteria;

³GSIPC – Groundwater Surface Water Interface Protection Criteria

⁴DCC – Direct Contact Criteria

4.3 TCLP Analytical Results

Arsenic, chromium, and mercury were analyzed following leach testing using USEPA method EPA 6020 B. Laboratory results are summarized and compared to 40 C.F.R. § 261.24 Title 40 - Protection of Environment, Chapter I - Environmental Protection Agency, Subchapter I - Solid Wastes, Part 261 - Identification and Listing of Hazardous Waste, Subpart C - Characteristics of Hazardous Waste in *Table 2, TCLP Analytical Detection Summary Table*. Upon comparison, the laboratory analytical results following TCLP testing were below laboratory method detection limits.

Copies of the laboratory analytical data report and chain of custody forms are included in Appendix E.

4.4 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:

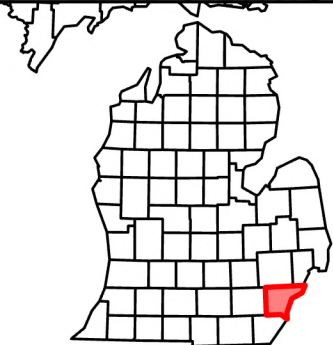
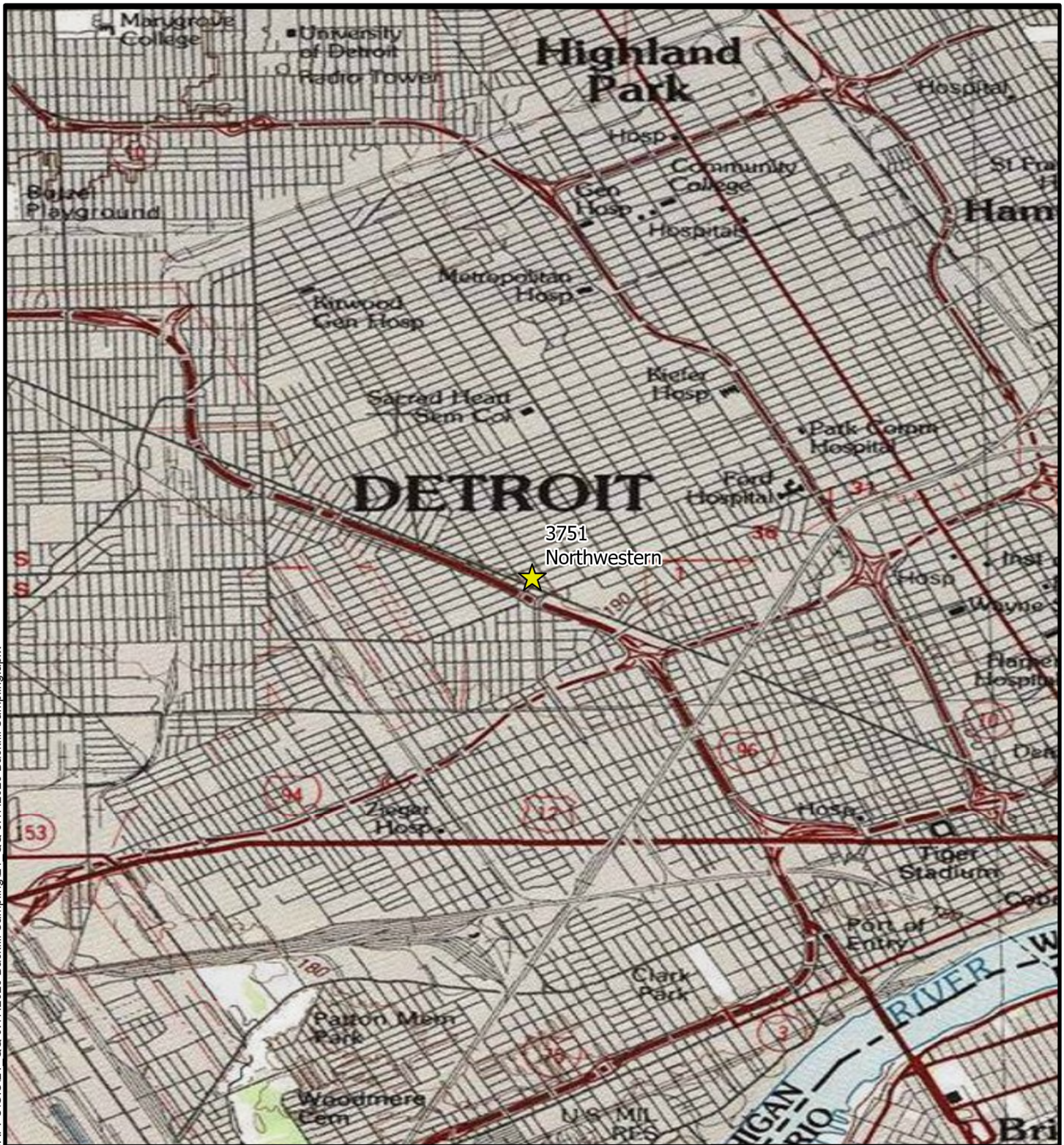
- The stratigraphy encountered during soil boring advancement of 3751 SB01, 3751 SB02, and 3751 SB03 generally consisted of a mix of clay, sand, silt, gravel, concrete, brick, and asphalt debris to six feet bgs, the maximum depth explored for this investigation. Field PID readings of the recovered soil cores ranged from 0.3 to 42.9 ppm. There were no visual (staining) and/or olfactory (e.g., petroleum-like odors) indications of contamination, however, coal debris were observed in 3751 SB02 during soil sampling activities.
- Concentrations of arsenic, mercury, and chromium (Total) were detected in soil samples 3751 SB01 (5-6'), 3751 SB02 (1-2'), and/or 3751 SB03 (3-4') in excess of their respective Part 201 DWPC, GSIPC, and/or DCC.
- Concentrations of 1,2,4-trimethylbenzene, 1-methylnaphthalene, 2-methylnaphthalene, 4,4-DDE, 4,4-DDT, acetone, anthracene, barium, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, cadmium, chloride, chrysene, copper, fluoranthene, indeno(1,2,3-cd)pyrene, lead, methyl acetate, phenanthrene, pyrene, selenium, total xylenes, and zinc were detected in soil samples 3751 SB01 (5-6'), 3751 SB02 (1-2'), and/or 3751 SB03 (3-4') at concentrations above laboratory method detection limits; however, detected concentrations were below their respective Part 201 GRCC and/or Statewide Default Background Levels.
- TCLP laboratory analytical results revealed that concentrations of arsenic, chromium, and mercury were not in excess of 40 C.F.R. § 261.24 Title 40 - Protection of Environment, Chapter I - Environmental Protection Agency, Subchapter I - Solid Wastes, Part 261- Identification and Listing of Hazardous Waste, Subpart C - Characteristics of Hazardous Waste.
- PCBs 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 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 DCC 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.

FIGURES





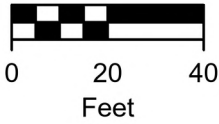
★ Site Location



FIGURE 1
SITE LOCATION

3751 Northwestern, Detroit, MI

DATE 9/23/2025	DRAWN BY JWW	DESIGNED BY JWW	PROJECT NO. DETR0060
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- Sample Locations
- Parcels (Current)
- Subject Property

Notes
• Parcel boundaries are approximate
• Basemap Credits: Wayne - 2020 - 6in - 4-band:



FIGURE 2
Site Layout

3751 Northwestern, Detroit, MI

DATE 9/22/2025	DRAWN BY JWW	DESIGNED BY KRB	PROJECT NO. DETR0060
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TABLES



Table 1
Soil Sample Analytical Detection Summary

Detroit Backfill Sampling
3571 Northwestern, Detroit, Michigan

SOIL: Part 201/213 Generic Residential Cleanup Criteria Revised October 12, 2023 Units: µg/kg	Volatile Organic Compounds (VOCs)				Semivolatile Organic Compounds (SVOCs)														
	Acetone	Methyl Acetate	Total Xylenes	1,2,4- Trimethylbenzene	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Benzo(a)pyrene	Chrysene	Fluoranthene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Phenanthrene	Pyrene		
CAS Number	67-64-1	79-20-9	1330-02-7	95-63-6	120-12-7	56-55-3	205-99-2	207-08-9	191-24-2	50-32-8	218-01-9	206-44-0	193-39-5	90-12-0	91-57-6	85-01-8	129-00-0		
Statewide Default Background Levels	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Drinking Water Protection Criteria (DWPC)	15,000	NA	5,600	2,100	41,000	NLL	NLL	NLL	NLL	NLL	NLL	7.3E+05	NLL	NA	57,000	56,000	4.8E+05		
Groundwater Surface Water Interface Protection Criteria (GSIPC)	34,000	NA	980	570	ID	NLL	NLL	NLL	NLL	NLL	NLL	5,500	NLL	NA	4,200	2,100	ID		
Soil Volatilization to Indoor Air Inhalation (SVIIC)	2.9E+8 (C)	NA	6.3E+6 (C)	4.3E+6 (C)	1.0E+09 (D)	NLV	ID	NLV	NLV	NLV	ID	1.0E+09 (D)	NLV	NA	2.7E+06	2.8E+06	1.0E+09 (D)		
Soil Volatilization to Indoor Air Pathway (SVIAP)	2.6E+05 (EE)	--	280 (J)	150 (JT)	1.3E+07	1.6E+05 (MM)	NA	NA	NA	NA	NA	NA	NA	--	1,700	1,700	2.5E+07		
Infinite Source Volatile Soil Inhalation Criteria (VSIC)	1.3E+08	NA	4.6E+07	2.1E+07	1.4E+09	NLV	ID	NLV	NLV	NLV	ID	7.4E+08	NLV	NA	1.5E+06	1.6E+05	6.5E+08		
Finite Source Volatile Soil Inhalation Criteria (5 m) (VSIC 5m)	1.3E+08	NA	6.1E+07	5.0E+08	1.4E+09	NLV	ID	NLV	NLV	NLV	ID	7.4E+08	NLV	NA	1.5E+06	1.6E+05	6.5E+08		
Finite Source Volatile Soil Inhalation Criteria (2 m) (VSIC 2m)	1.9E+08	NA	1.3E+08	5.0E+08	1.4E+09	NLV	ID	NLV	NLV	NLV	ID	7.4E+08	NLV	NA	1.5E+06	1.6E+05	6.5E+08		
Particulate Soil Inhalation Criteria (PSIC)	3.9E+11	NA	2.9E+11	8.2E+10	6.7E+10	ID	ID	ID	8.0E+08	1.5E+06	ID	9.3E+09	ID	NA	6.7E+08	6.7E+06	6.7E+09		
Direct Contact Criteria (DCC)	2.3E+07	NA	4.1E+08 (C)	3.2E+07 (C)	2.3E+08	20,000	20,000	2.0E+05	2.5E+06	2,000	2.0E+06	4.6E+07	20,000	NA	8.1E+06	1.6E+06	2.9E+07		
Soil Saturation Concentration Screening Levels (C _{sat})	1.1E+08	NA	1.5E+05	1.1E+05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Recommended Interim Action Screening Level (RIASL)	2.6E+05	NA	280	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
SAMPLE ID	DEPTH (ft)	SAMPLE DATE																	
3571 SB01	5-6	8/8/2025	184	<307	<36.8	120	157	291	388	179	209	284	269	605	209	82.1	134	396	650
3571 SB02	1-2	8/8/2025	141	<299	<35.9	<35.9	87.5	211	306	117	160	211	175	379	138	<72.9	<72.9	146	408
3751 SB03	3-4	8/8/2025	360	327	35.3	115	<145	291	450	174	232	291	262	698	203	<145	<145	363	828
3751 Northwestern SB01 - R	5-6	10/28/2025	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:
Bold indicates concentration above laboratory reporting limits.
Exceeds DWPC
Exceeds GSIPC
Exceeds Applicable Soil Vapor Inhalation screening level
Exceeds Two or More DWPC, GSIPC, and/or Applicable Soil Vapor Inhalation screening levels
Exceeds PSIC, DCC, and/or C_{sat}, likely exceeds others
ND = Not Detected above laboratory reporting limits
NS = Not Sampled or Not Analyzed
NR = Not Reported (Data missing from provided report)
Notes in parentheses and standard abbreviations from Part 201 Rules 299.1 through 299.50, updated October 12, 2023
VIAP Screening Levels and notes from EGLE Guidance Document For The Vapor Intrusion Pathway, Appendix D.1 Vapor Intrusion Screening Values, May 2013, updated February 26, 2024

Table 1
Soil Sample Analytical Detection Summary

Detroit Backfill Sampling
3571 Northwestern, Detroit, Michigan

SOIL: Part 201/213 Generic Residential Cleanup Criteria Revised October 12, 2023 Units: µg/kg			Michigan 10 Metals										Pesticides/Herbicides		Polychlorinated Biphenyls (PCBs)	Inorganic Anions/Ions
			Arsenic	Barium (B)	Cadmium (B)	Chromium (Total)	Copper (B)	Lead (B)	Mercury (B,Z)	Selenium (B)	Silver (B)	Zinc (B)	4,4'-DDE	4,4'-DDT		Chloride
CAS Number			7440-38-2	7440-39-3	7440-43-9	7440-47-3	7440-50-8	7439-92-1	7439-97-6	7782-49-2	7440-22-4	7440-66-6	72-55-9	50-29-3		16887006
Statewide Default Background Levels			5,800	75,000	1,200	18,000	32,000	21,000	130	410	1,000	47,000	NA	NA		NA
Drinking Water Protection Criteria (DWPC)			4,600	1.3E+06	6,000	30,000	5.8E+06	7.0E+05	1,700	4,000	4,500	2.4E+06	NLL	NLL		5.00E+06
Groundwater Surface Water Interface Protection Criteria (GSIPC)			4,600	(G)	(G,X)	3,300	(G)	(G,X)	50 (M); 1.2	400	100 (M); 27	(G)	NLL	NLL		(X)
Soil Volatilization to Indoor Air Inhalation (SVIIC)			NLV	NLV	NLV	NLV	NLV	NLV	48,000	NLV	NLV	NLV	NLV	NLV		NLV
Soil Volatilization to Indoor Air Pathway (SVIAP)			NA	NA	NA	--	NA	NA	22 (M)	NA	NA	NA	--	--		--
Infinite Source Volatile Soil Inhalation Criteria (VSIC)			NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV	NLV	NLV		NLV
Finite Source Volatile Soil Inhalation Criteria (5 m) (VSIC 5m)			NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV	NLV	NLV		NLV
Finite Source Volatile Soil Inhalation Criteria (2 m) (VSIC 2m)			NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV	NLV	NLV		NLV
Particulate Soil Inhalation Criteria (PSIC)			7.2E+05	3.3E+08	1.7E+06	2.6E+05	1.3E+08	1.0E+08	2.0E+07	1.3E+08	6.7E+06	ID	3.2E+07	3.20E+07		ID
Direct Contact Criteria (DCC)			7,600	3.7E+07	5.5E+05	2.5E+06	2.0E+07	4.0E+05	1.6E+05	2.6E+06	2.5E+06	1.7E+08	45,000	57,000		5.0E+5 (F)
Soil Saturation Concentration Screening Levels (C _{sat})			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
Recommended Interim Action Screening Level (RIASL)			NA	NA	NA	NA	NA	NA	2.7E-02	NA	NA	NA	--	--		--
SAMPLE ID	DEPTH (ft)	SAMPLE DATE														
3571 SB01	5-6	8/8/2025	14,800	58,700	171	28,400	18,200	31,200	481	<336	<3,360	66,600	<1,680	<1,680	ND	130,000
3571 SB02	1-2	8/8/2025	8,540	50,400	133	10,800	12,000	25,900	49.1	344	<313	52,600	27.3	12.9	ND	135,000
3751 SB03	3-4	8/8/2025	7,440	56,200	168	22,400	20,400	43,100	62.3	<328	<328	73,500	<1,090	<1,090	ND	101,000
3751 Northwestern SB01 - R	5-6	10/28/2025	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<19.1	<19.3	NS	NS

Notes:

Bold indicates concentration above laboratory reporting limits.

Exceeds DWPC

Exceeds GSIPC

Exceeds Applicable Soil Vapor Inhalation screening level

Exceeds Two or More DWPC, GSIPC, and/or Applicable Soil Vapor Inhalation screening levels

Exceeds PSIC, DCC, and/or C_{sat}, likely exceeds others

ND = Not Detected above laboratory reporting limits

NS = Not Sampled or Not Analyzed

NR = Not Reported (Data missing from provided report)

Notes in parentheses and standard abbreviations from Part 201 Rules 299.1

through 299.50, updated October 12, 2023

VIAP Screening Levels and notes from EGLE Guidance Document For The Vapor

Intrusion Pathway, Appendix D.1 Vapor Intrusion Screening Values, May 2013,

updated February 26, 2024

Table 2
TCLP Analytical Detection Summary

Detroit Backfill Sampling
3751 Northwestern, Detroit, Michigan

40 C.F.R. § 261.24 Code of Federal Regulations Title 40 - Protection of Environment Chapter I - Environmental Protection Agency Subchapter I - Solid Wastes Part 261- Identification and Listing of Hazardous Waste Subpart C - Characteristics of Hazardous Waste <i>Units: mg/L</i>		TCLP Metals		
		Arsenic	Chromium	Mercury
Maximum Concentration of Contaminants for the Toxicity Characteristic		5.00	5.00	0.20
SAMPLE ID	SAMPLE DATE			
3751 Northwestern SB01 TCLP	10/7/2025	<0.00190	<0.00610	<0.00160

Notes:

Bold indicates concentration above method detection limits.

Exceeds Maximum Concentration of Contaminates for the Toxicity Characteristic

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 REPORTS



**DAILY FIELD REPORT****Client:** City of Detroit Demolition Department**Project:** Sampling and Analysis of Fill Material**Report No.:** 1**Job No.:** DETR0060

Date: 08/8/2025	Day: Friday	Temp: _____ (AM) 85° F (PM)
MSG Personnel: WRD, JDF	Cloud Cover: _____ (AM) 10-15% (PM)	Precip.: _____ (AM) None (PM)
Personnel: MSG		
MSG Hours On-Site: 1.25 hours		

Contractors Information		
Contractor: MSG	No. Men and Type: 2; Operator/Geologist	Equipment Type: Geoprobe 7822DT

Summary of Work Performed:
- Advanced three (3) onsite soil borings to a maximum depth of 6 feet below ground surface (bgs) - Collected soil samples from each soil boring (from the interval with the greatest potential to be impacted based on field indicators).

Field Notes:
1325 – WRD & JDF onsite (3751 Northwestern St) 1329– Unloaded equipment and checked boring locations 1332 – Began drilling SB01 1339 – Finished drilling SB01 1340 – Began drilling SB02 1347 – Finished drilling SB02 1348 – Began drilling SB03 1354 – Finished drilling SB03 1400 – Sampled 3751 SB01 (5-6') 1405 – Sampled 3751 SB02 (1-2') 1410 – Sampled 3751 SB03 (3-4') 1445 – Packed up equipment 1515 – MSG off site

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



DAILY FIELD REPORT

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

Report No.: 2
Job No.: DETR0060

Date: <u>10/7/2025</u>	Day: <u>Tuesday</u>	Temp: <u>60 ° F</u> (AM) <u>60 ° F</u> (PM)	
MSG Personnel: <u>SRK, JF</u>		Cloud Cover: <u>100%</u> (AM) <u>100%</u> (PM)	
		Precip.: <u>N/A</u> (AM) <u>N/A</u> (PM)	
Personnel: <u>MSG</u>			
MSG Hours On-Site: <u>~ 1 hours</u>			

Contractors Information		
Contractor: <u>MSG</u>	No. Men and Type: <u>2; Operator/Geologist</u>	Equipment Type: <u>Geoprobe 7822DT</u>

Summary of Work Performed:
- Advanced one (1) onsite soil borings to a maximum depth of 6 feet below ground surface (bgs) - Collected TCLP of fill material from soil boring (composite sample of from zero to 6 feet bgs).

Field Notes:
1118 – MSG (SRK, JF) onsite (3751 Northwestern) 1120 – Attempted to locate previous boring locations. Marked out new boring location. 1136 – Began drilling SB01 TCLP 1138 – Finished drilling SB01 TCLP 1150 – Sampled 3751 Northwestern SB01 TCLP 1155 – Collected GPS points 1200 – Packed up equipment 1210 – MSG off site

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

**DAILY FIELD REPORT****Client:** City of Detroit Demolition Department**Project:** Sampling and Analysis of Fill Material**Report No.:** 3**Job No.:** DETR0060

Date: 10/28/2025	Day: Tuesday	Temp: 49 ° F	(AM)	N/A	(PM)
MSG Personnel: WRD, BM		Cloud Cover: ~5%	(AM)	N/A	(PM)
		Precip.: N/A	(AM)	N/A	(PM)
Personnel: MSG					
MSG Hours On-Site: ~ 1 hour					
Contractors Information					
Contractor: MSG		No. Men and Type: 2; Operator/Geologist		Equipment Type: Geoprobe 7822DT	
Summary of Work Performed:					
- Advanced one (1) onsite soil borings to a maximum depth of 6 feet below ground surface (bgs) - Collected soil sample from soil boring (from the interval 5-6' to analyze for Pesticides and Herbicides)					
Field Notes:					
1135 – MSG (WRD, BM) onsite (3751 Northwestern) 1145 – Attempted to locate previous boring locations. Marked out new boring location. 1200 – Began drilling SB01 (5-6')-R 1205 – Finished drilling SB01 (5-6')-R 1211 – Sampled 3751 Northwestern SB01 (5-6')-R 1216 – Packed up equipment 1220 – MSG off site					

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

APPENDIX C

INVESTIGATION PHOTOGRAPHS





Photo 1. View of Site at the time of initial soil boring activities



Photo 2. View of the Site at the time of TCLP soil boring activities



Photo 3. View of TCLP soil boring location



Photo 4. View of TCLP soil recovery



Photo 5. View of Site following TCLP sampling activities



Photo 6. View of Site at the time of supplemental soil sampling activities



Photo 7. View of supplemental soil boring recovery



Photo 8. View of supplemental soil sample boring location

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.BFS08
DATE STARTED 08-08-2025 **COMPLETED** 08-08-2025
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT Geoprobe 7822DT **Operator** JDF

PROJECT NAME Backfill Soil Sampling
PROJECT LOCATION 3751 Northwestern, Detroit, MI
POSITION
SURFACE ELEVATION **FINAL DEPTH** 6.0 ft
LOGGED BY WRD **CHECKED BY** PDH
REMARKS

DEPTH (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
5	ES	42		Sandy CLAY, some Silt & Gravel with Concrete, Brick and Asphalt debris; dry	1.8 2.9 13.0 11.6 6.5 18.4	Collected soil sample 3751 SB01 (5-6) at 14:00
6.0				Terminated at 6.00 ft.		
10						
15						
20						

LEGEND:

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



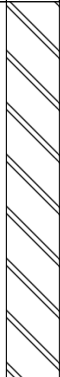
The Mannik & Smith Group, Inc.
2365 Haggerty Road South, Canton, MI 48188
ph: (734) 397-3100 fax: (734) 397-3131
www.manniksmithgroup.com

BOREHOLE NUMBER SB02

Sheet 1 of 1

CLIENT City of Detroit
PROJECT NUMBER DETR0060.BFS08
DATE STARTED 08-08-2025 **COMPLETED** 08-08-2025
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT Geoprobe 7822DT **Operator** JDF

PROJECT NAME Backfill Soil Sampling
PROJECT LOCATION 3751 Northwestern, Detroit, MI
POSITION
SURFACE ELEVATION **FINAL DEPTH** 6.0 ft
LOGGED BY WRD **CHECKED BY** PDH
REMARKS

DEPTH (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
5	ES	33		Sandy CLAY, some Silt & Gravel with Concrete, Brick and Asphalt debris; dry - Coal debris observed at 1' bgs	0.3 0.8 4.2 5.2 9.8 16.4	Collected soil sample 3751 SB02 (1-2) at 14:05
6.0				Terminated at 6.00 ft.		
10						
15						
20						

LEGEND:

▽ AT TIME OF DRILLING

▼ AT END OF DRILLING

▽ AFTER DRILLING



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

BOREHOLE NUMBER SB03

Sheet 1 of 1

CLIENT City of Detroit
PROJECT NUMBER DETR0060.BFS08
DATE STARTED 08-08-2025 **COMPLETED** 08-08-2025
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT Geoprobe 7822DT **Operator** JDF

PROJECT NAME Backfill Soil Sampling
PROJECT LOCATION 3751 Northwestern, Detroit, MI
POSITION
SURFACE ELEVATION **FINAL DEPTH** 6.0 ft
LOGGED BY WRD **CHECKED BY** PDH
REMARKS

DEPTH (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
5	ES	33		Sandy CLAY, some Silt & Gravel with Concrete, Brick and Asphalt debris; dry	2.0	
					2.9	
					14.2	
					42.9	Collected soil sample 3751 SB03 (3-4) at 14:10
					25.5	
					21.3	
6.0				Terminated at 6.00 ft.		
10						
15						
20						

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.

CERTIFICATE OF ANALYSIS

Work Order

HN2511149

Client

The Mannik & Smith Group, Inc.

Project

3751 Northwestern

Project Date

August 09, 2025

Reporting Contact

Ryan Montri



right solutions.
right partner.

August 27, 2025

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

Work Order: **HN2511149**

Re: **3751 Northwestern**

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

Bill Carey
/S/ **BILL CAREY**
Project Manager



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern

Work Order: HN2511149
Date Received: 11-Aug-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 11-Aug-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.

Metals

EPA 6020B-3050B-S

Run ID: 3400811

The MSD recovery was outside of the control limit; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Ba Pb batch 2159430

The MS recovery was outside of the control limit; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Ba Pb batch 2159430

Run ID: 3405204

The RPD between the MS and MSD was outside of the control limit. The corresponding result should be considered estimated for this compound: Cu Batch 2159430

The MS recovery was outside of the control limit. However, the MSD recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte: As Batch 2159430

The MSD recovery was outside of the control limit; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Cr, Zn Batch 2159430

The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Cu Batch 2159430

The MS recovery was outside of the control limit; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Cr, Zn Batch 2159430

The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: Cu Batch 2159430

HN2511149-001: Silver - The reporting limit is elevated due to dilution for high concentrations of non-target analytes. Ag

Organics

EPA 8270E-FULL HN-3546-S



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern

Work Order: HN2511149
Date Received: 11-Aug-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.

Run ID: 3419281

The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: See QC report.
The concentration in the Method Blank was greater than the Method Detection Limit. Positive results in the batch may be biased high for this analyte: 1,1'-Biphenyl.
The LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for this analyte: 1,3-Dinitrobenzene; 1,4-Dinitrobenzene.
The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for the following analyte(s): See QC report.
The matrix spike recoveries are unavailable due to dilution below the calibration range. See QC report.
The MSD recoveries are unavailable due to dilution below the calibration range. See QC report.
Surrogates were not spiked in the LCS, MS, or MSD during extraction.
The Continuing Calibration Verification did not meet acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: 1,2-Dinitrobenzene; 1,3-Dinitrobenzene; 1,4-Dinitrobenzene; 2,4-Dinitrophenol; 2,4-Dinitrotoluene; 2-Nitroaniline; 2-Nitrophenol; 4,6-Dinitro-2-methylphenol; N-Nitrosodimethylamine.
HN2511149-002: The reporting limit is elevated due to dilution needed to eliminate matrix-related interference.
HN2511149-003: The reporting limit is elevated due to dilution needed to eliminate matrix-related interference.
HN2511149-001: Phenol-d6 - One or more surrogate recoveries were below the lower control limit due to sample dilution.
HN2511149-001: 2,4,6-Tribromophenol - One or more surrogate recoveries were below the lower control limit due to sample dilution.
HN2511149-001: 2-Fluorophenol - One or more surrogate recoveries were below the lower control limit due to sample dilution.
HN2511149-003: 2,4,6-Tribromophenol - One or more surrogate recoveries were below the lower control limit due to sample dilution.

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

Run ID: 3398752

The following analytes failed calibration refit conditions. All samples in this batch were non-detect. No qualification is necessary for these analytes: chloroethane
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: trichlorofluoromethane
The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: 1,1,2,2-tetrachloroethane
The MS recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: tetrachloroethene, trichloroethane
The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for the following analyte(s): 1,1,2,2-tetrachloroethane
The MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: tetrachloroethene, trichloroethane

EPA 8081B-3546-S (High)

Run ID: 3433284

HN2511149-002: The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimated: DCB

Inorganics

EPA 9056A-S (High)

Run ID: 3403361

Matrix spike value was outside upper limit of calibration. Processed at equivalent dilution level as the parent - Chloride. The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for the following analyte(s): Chloride, Bromide

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: 3751 SB01 (5-6)	Lab ID: HN2511149-001
----------------------------	-----------------------

Analyte	Results	Flag	MRL	Units	Method
1,2,4-Trimethylbenzene	120		36.8	µg/kg	EPA 8260D
1-Methylnaphthalene	82.1		74.7	µg/kg	EPA 8270E
2-Methylnaphthalene	134		74.7	µg/kg	EPA 8270E
Acetone	184		123	µg/kg	EPA 8260D
Anthracene	157	S	74.7	µg/kg	EPA 8270E
Arsenic	14.8	S	3.36	mg/kg	EPA 6020B
Barium	58.7		0.336	mg/kg	EPA 6020B
Benzo(a)anthracene	291	S	74.7	µg/kg	EPA 8270E
Benzo(a)pyrene	284	S	74.7	µg/kg	EPA 8270E
Benzo(b)fluoranthene	388	S	74.7	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	209	S	74.7	µg/kg	EPA 8270E
Benzo(k)fluoranthene	179	S	74.7	µg/kg	EPA 8270E
Cadmium	0.171		0.134	mg/kg	EPA 6020B
Chloride	130	S	11.4	mg/kg	EPA 9056A
Chromium	28.4		3.36	mg/kg	EPA 6020B
Chrysene	269	S	74.7	µg/kg	EPA 8270E
Copper	18.2	S	3.36	mg/kg	EPA 6020B
Fluoranthene	605	S	74.7	µg/kg	EPA 8270E
Indeno(1,2,3-cd) pyrene	209	S	74.7	µg/kg	EPA 8270E
Lead	31.2		0.336	mg/kg	EPA 6020B
Mercury	0.481		0.0361	mg/kg	EPA 7471B
Percent Moisture	12.2		0.1	%	EPA 3550C
Phenanthrene	396	S	74.7	µg/kg	EPA 8270E
Pyrene	650		74.7	µg/kg	EPA 8270E
Zinc	66.6		6.73	mg/kg	EPA 6020B

CLIENT ID: 3751 SB02 (1-2)	Lab ID: HN2511149-002
----------------------------	-----------------------

Analyte	Results	Flag	MRL	Units	Method
4,4'-DDE	27.3		10.9	µg/kg	EPA 8081B
4,4'-DDT	12.9		10.9	µg/kg	EPA 8081B
Acetone	141		120	µg/kg	EPA 8260D
Anthracene	87.5		72.9	µg/kg	EPA 8270E
Arsenic	8.54		0.313	mg/kg	EPA 6020B
Barium	50.4		0.313	mg/kg	EPA 6020B
Benzo(a)anthracene	211		72.9	µg/kg	EPA 8270E
Benzo(a)pyrene	211		72.9	µg/kg	EPA 8270E
Benzo(b)fluoranthene	306		72.9	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	160		72.9	µg/kg	EPA 8270E
Benzo(k)fluoranthene	117		72.9	µg/kg	EPA 8270E
Cadmium	0.133		0.125	mg/kg	EPA 6020B
Chloride	135		10.9	mg/kg	EPA 9056A

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: 3751 SB02 (1-2)	Lab ID: HN2511149-002
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Analyte	Results	Flag	MRL	Units	Method
Chromium	10.8		0.313	mg/kg	EPA 6020B
Chrysene	175		72.9	µg/kg	EPA 8270E
Copper	12.0		0.313	mg/kg	EPA 6020B
Fluoranthene	379		72.9	µg/kg	EPA 8270E
Indeno(1,2,3-cd) pyrene	138		72.9	µg/kg	EPA 8270E
Lead	25.9		0.313	mg/kg	EPA 6020B
Mercury	0.0491		0.0200	mg/kg	EPA 7471B
Percent Moisture	8.7		0.1	%	EPA 3550C
Phenanthrene	146		72.9	µg/kg	EPA 8270E
Pyrene	408		72.9	µg/kg	EPA 8270E
Selenium	0.344		0.313	mg/kg	EPA 6020B
Zinc	52.6		6.26	mg/kg	EPA 6020B

CLIENT ID: 3751 SB03 (3-4)	Lab ID: HN2511149-003
----------------------------	-----------------------

Analyte	Results	Flag	MRL	Units	Method
1,2,4-Trimethylbenzene	115		35.3	µg/kg	EPA 8260D
Acetone	360		118	µg/kg	EPA 8260D
Arsenic	7.44		0.328	mg/kg	EPA 6020B
Barium	56.2		0.328	mg/kg	EPA 6020B
Benzo(a)anthracene	291		145	µg/kg	EPA 8270E
Benzo(a)pyrene	291		145	µg/kg	EPA 8270E
Benzo(b)fluoranthene	450		145	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	232		145	µg/kg	EPA 8270E
Benzo(k)fluoranthene	174		145	µg/kg	EPA 8270E
Cadmium	0.168		0.131	mg/kg	EPA 6020B
Chloride	101		10.8	mg/kg	EPA 9056A
Chromium	22.4		0.328	mg/kg	EPA 6020B
Chrysene	262		145	µg/kg	EPA 8270E
Copper	20.4		3.28	mg/kg	EPA 6020B
Fluoranthene	698		145	µg/kg	EPA 8270E
Indeno(1,2,3-cd) pyrene	203		145	µg/kg	EPA 8270E
Lead	43.1		0.328	mg/kg	EPA 6020B
Mercury	0.0623		0.0208	mg/kg	EPA 7471B
Methyl acetate	327		294	µg/kg	EPA 8260D
o-Xylene	35.3		35.3	µg/kg	EPA 8260D
Percent Moisture	8.4		0.1	%	EPA 3550C
Phenanthrene	363		145	µg/kg	EPA 8270E
Pyrene	828		145	µg/kg	EPA 8270E
Zinc	73.5		6.56	mg/kg	EPA 6020B

SAMPLE SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Workorder: HN2511149

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2511149-001	3751 SB01 (5-6)	SOIL/SOLID	08/08/25 14:00	08/09/25 08:00
HN2511149-002	3751 SB02 (1-2)	SOIL/SOLID	08/08/25 14:05	08/09/25 08:00
HN2511149-003	3751 SB03 (3-4)	SOIL/SOLID	08/08/25 14:10	08/09/25 08:00



ALS Environmental

Laboratory location:

Chain of Custody Form

Page 1 of 1

Customer Information		Project Information		Parameter/Method Request for Analysis													
Purchase Order		Project Name	3751 Northwestern	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@manniksmithgroup.com	e-Mail Address		J													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	3751 SB01 (5-6)	8/8/25	1400	Soil	METH	3	X	X	X	X	X	X	X				
2	3751 SB02 (1-2)	I	1405	Soil	I	3	X	X	X	X	X	X	X				
3	3751 SB03 (3-4)	I	1410	Soil	I	3	X	X	X	X	X	X	X				
4																	
5																	
6																	
7																	
8																	
9																	
10																	
Sampler(s): Please Print & Sign WILEY DAVENPORT		Shipment Method:		Required Turnaround Time:		☐ Other _____ ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour											
Relinquished by:		Date:	Time:	Received by:		Notes: Quote# HN-061825-M&S-N											
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler Temp.		QC Package: (Check Box Below)									
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):				☐ Level II: Standard QC ☐ TRRP-Checklist									
								☐ Level III: Std QC + Raw Data ☐ TRRP Level IV									
								☐ 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-S035								Other: _____									

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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Environmental Division
Holland
Work Order Reference
HN2511149



Telephone : +1 616 399 6070



ALS Holland Sample Receiving Checklist

Received by:

Date/Time:

Carrier Name:

Shipping container/cooler in good condition?

Custody seals intact on shipping container/cooler?

Custody seals intact on sample bottles?

Chain of Custody present?

COC signed when relinquished and received?

COC agrees with sample labels?

Samples in proper container/bottle?

Sample containers intact?

Sufficient sample volume for indicated test?

All samples received within holding time?

Container/Temp Blank temperature in compliance?

Temperature(s) (°C):

Thermometer(s):

Sample(s) received on ice?

Matrix/Matrices:

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage:

Water – VOA vials have zero headspace?

Water – pH acceptable upon receipt?

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

pH adjusted (note adjustments below)?

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 Certifications¹

Agency	Type	ID	Issued	Expires
Alabama	Drinking Water (Secondary)	42500	12/17/2024	12/31/2025
Colorado	UST		07/01/2025	06/30/2026
Connecticut	Drinking Water (Secondary)	PH-0155	12/10/2024	12/31/2026
Florida	NELAP (Primary)	E871106	07/01/2025	06/30/2026
Illinois	NELAP (Secondary)	200076	11/14/2024	12/31/2025
Indiana	Drinking Water (Secondary)	C-MI-08	12/31/2024	09/04/2026
Iowa	State Specific	403	09/18/2023	09/01/2025
Kansas	NELAP (Secondary)	E-10411	07/09/2024	07/31/2025
Kentucky	Waste Water	KY98004	12/20/2024	12/31/2025
Kentucky	UST	120474	06/24/2024	06/30/2025
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	07/01/2024	6/30/2025
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	06/14/2024	07/31/2025
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	08/15/2024	08/31/2025

¹ - Scope available upon request

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern

Work Order: HN2511149

Sample Name: 3751 SB01 (5-6)
Laboratory Code: HN2511149-001
Sample Matrix: SOIL/SOLID

Date Collected: 08/08/25
Date Received: 08/09/25

Analysis Method	Container ID	Preparation	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	001-AC	2157868		3396624	Nicole Maleski
EPA 6020B	001-AC	2159430	Denise Coffey	3400811	Denise Coffey
EPA 6020B	001-AC	2159430	Denise Coffey	3405204	Hunter Johnson
EPA 7471B	001-AC	2154842	Maxx Richey	3400395	Maxx Richey
EPA 8081B	001-AC	2167835	Sam Bruzan	3440418	Madison VandenBer
EPA 8082A	001-AC	2167839	Sam Bruzan	3421877	Nathaniel Dietlin
EPA 8151A	001-AC	2170067	Sam Bruzan	3418607	Kathy Malmyga
EPA 8260D	001-AA	2153840	Jonathan Vazquez	3398752	John Garvale
EPA 8270E	001-AC	2166163	Sam Bruzan	3419281	Erin Wall
EPA 9056A	001-AC	2158214	Quoc Nguyen	3403361	Quoc Nguyen

Sample Name: 3751 SB02 (1-2)
Laboratory Code: HN2511149-002
Sample Matrix: SOIL/SOLID

Date Collected: 08/08/25
Date Received: 08/09/25

Analysis Method	Container ID	Preparation	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	002-AC	2157868		3396624	Nicole Maleski
EPA 6020B	002-AC	2159430	Denise Coffey	3400811	Denise Coffey
EPA 6020B	002-AC	2159430	Denise Coffey	3405204	Hunter Johnson
EPA 7471B	002-AC	2154842	Maxx Richey	3393374	Maxx Richey
EPA 8081B	002-AC	2167835	Sam Bruzan	3433284	Madison VandenBer
EPA 8082A	002-AC	2167839	Sam Bruzan	3421877	Nathaniel Dietlin
EPA 8151A	002-AC	2170067	Sam Bruzan	3418607	Kathy Malmyga
EPA 8260D	002-AA	2153840	Jonathan Vazquez	3398752	John Garvale
EPA 8270E	002-AC	2166163	Sam Bruzan	3419281	Erin Wall
EPA 9056A	002-AC	2158214	Quoc Nguyen	3403361	Quoc Nguyen

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern

Work Order: HN2511149

Sample Name: 3751 SB03 (3-4)
Laboratory Code: HN2511149-003
Sample Matrix: SOIL/SOLID

Date Collected: 08/08/25
Date Received: 08/09/25

Analysis Method	Container ID	Preparation	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	003-AC	2157868		3396624	Nicole Maleski
EPA 6020B	003-AC	2159430	Denise Coffey	3400811	Denise Coffey
EPA 6020B	003-AC	2159430	Denise Coffey	3405204	Hunter Johnson
EPA 7471B	003-AC	2154842	Maxx Richey	3393374	Maxx Richey
EPA 8081B	003-AC	2167835	Sam Bruzan	3440418	Madison VandenBer
EPA 8082A	003-AC	2167839	Sam Bruzan	3421877	Nathaniel Dietlin
EPA 8151A	003-AC	2170067	Sam Bruzan	3418607	Kathy Malmyga
EPA 8260D	003-AA	2153840	Jonathan Vazquez	3398752	John Garvale
EPA 8270E	003-AC	2166163	Sam Bruzan	3419281	Erin Wall
EPA 9056A	003-AC	2158214	Quoc Nguyen	3403361	Quoc Nguyen

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:00
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB01 (5-6) **Lab ID: HN2511149-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	12.2		%	0.1	1	08/13/25 15:37	NA
Chloride	EPA 9056A	130	S	mg/kg	11.4	1	08/14/25 13:35	08/13/25 16:10
Metals								
Arsenic	EPA 6020B	14.8	S	mg/kg	3.36	10	08/15/25 17:32	08/14/25 08:11
Barium	EPA 6020B	58.7		mg/kg	0.336	1	08/15/25 04:41	08/14/25 08:11
Cadmium	EPA 6020B	0.171		mg/kg	0.134	1	08/15/25 04:41	08/14/25 08:11
Chromium	EPA 6020B	28.4		mg/kg	3.36	10	08/15/25 17:32	08/14/25 08:11
Copper	EPA 6020B	18.2	S	mg/kg	3.36	10	08/15/25 17:32	08/14/25 08:11
Lead	EPA 6020B	31.2		mg/kg	0.336	1	08/15/25 04:41	08/14/25 08:11
Selenium	EPA 6020B	ND		mg/kg	0.336	1	08/15/25 04:41	08/14/25 08:11
Silver	EPA 6020B	ND		mg/kg	3.36	10	08/15/25 17:32	08/14/25 08:11
Zinc	EPA 6020B	66.6		mg/kg	6.73	10	08/15/25 17:32	08/14/25 08:11
Mercury	EPA 7471B	0.481		mg/kg	0.0361	2	08/14/25 12:42	08/12/25 15:08
Organochlorine Pesticides by GC/ECD								
4,4'-DDD	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
4,4'-DDE	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
4,4'-DDT	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
Aldrin	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
alpha-BHC	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
beta-BHC	EPA 8081B	ND	S	µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
Chlordane, Technical	EPA 8081B	ND		µg/kg	4190	100	08/26/25 20:02	08/19/25 10:41
cis-Chlordane	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
delta-BHC	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
Dieldrin	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
Endosulfan I	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
Endosulfan II	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
Endosulfan sulfate	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
Endrin	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
Endrin aldehyde	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
Endrin ketone	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
gamma-BHC (Lindane)	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:00
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB01 (5-6)	Lab ID: HN2511149-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Heptachlor	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
Heptachlor epoxide	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
Methoxychlor	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
Toxaphene	EPA 8081B	ND		µg/kg	10000	100	08/26/25 20:02	08/19/25 10:41
trans-Chlordane	EPA 8081B	ND		µg/kg	1680	100	08/26/25 20:02	08/19/25 10:41
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	185	<i>S</i>	<i>%REC</i>	<i>53-151</i>	<i>100</i>	<i>08/26/25 20:02</i>	<i>08/19/25 10:41</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	110		<i>%REC</i>	<i>67-127</i>	<i>100</i>	<i>08/26/25 20:02</i>	<i>08/19/25 10:41</i>

Semivolatile Organic Compounds by GC

Aroclor 1016	EPA 8082A	ND		µg/kg	112	1	08/20/25 18:36	08/19/25 12:11
Aroclor 1221	EPA 8082A	ND		µg/kg	112	1	08/20/25 18:36	08/19/25 12:11
Aroclor 1232	EPA 8082A	ND		µg/kg	112	1	08/20/25 18:36	08/19/25 12:11
Aroclor 1242	EPA 8082A	ND		µg/kg	112	1	08/20/25 18:36	08/19/25 12:11
Aroclor 1248	EPA 8082A	ND		µg/kg	112	1	08/20/25 18:36	08/19/25 12:11
Aroclor 1254	EPA 8082A	ND		µg/kg	112	1	08/20/25 18:36	08/19/25 12:11
Aroclor 1260	EPA 8082A	ND		µg/kg	112	1	08/20/25 18:36	08/19/25 12:11
Aroclor 1262	EPA 8082A	ND		µg/kg	112	1	08/20/25 18:36	08/19/25 12:11
Aroclor 1268	EPA 8082A	ND		µg/kg	112	1	08/20/25 18:36	08/19/25 12:11
Total PCB	EPA 8082A	ND		µg/kg	112	1	08/20/25 18:36	08/19/25 12:11
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	118		<i>%REC</i>	<i>54-146</i>	<i>1</i>	<i>08/20/25 18:36</i>	<i>08/19/25 12:11</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	91.5		<i>%REC</i>	<i>58-140</i>	<i>1</i>	<i>08/20/25 18:36</i>	<i>08/19/25 12:11</i>
2,4,5-T	EPA 8151A	ND		µg/kg	5.58	1	08/21/25 22:35	08/20/25 07:35
2,4,5-TP (Silvex)	EPA 8151A	ND		µg/kg	5.58	1	08/21/25 22:35	08/20/25 07:35
2,4-D	EPA 8151A	ND		µg/kg	11.2	1	08/21/25 22:35	08/20/25 07:35
<i>Surr: DCAA</i>	<i>EPA 8151A</i>	82.0		<i>%REC</i>	<i>10-116</i>	<i>1</i>	<i>08/21/25 22:35</i>	<i>08/20/25 07:35</i>

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	3730	10	08/20/25 20:24	08/18/25 11:43
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	1870	10	08/20/25 20:24	08/18/25 11:43
1-Methylnaphthalene	EPA 8270E	82.1		µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:00
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB01 (5-6) **Lab ID: HN2511149-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND	S	µg/kg	747	10	08/20/25 20:24	08/18/25 11:43
2,4,5-Trichlorophenol	EPA 8270E	ND	S	µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
2,4,6-Trichlorophenol	EPA 8270E	ND	S	µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
2,4-Dichlorophenol	EPA 8270E	ND	S	µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
2,4-Dinitrophenol	EPA 8270E	ND	S	µg/kg	3730	10	08/20/25 20:24	08/18/25 11:43
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
2-Chlorophenol	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND	S	µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
2-Methylnaphthalene	EPA 8270E	134		µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
2-Nitroaniline	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
2-Nitrophenol	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
3&4-Methylphenol	EPA 8270E	ND	S	µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	1870	10	08/20/25 20:24	08/18/25 11:43
3-Nitroaniline	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
4-Chloroaniline	EPA 8270E	ND		µg/kg	747	10	08/20/25 20:24	08/18/25 11:43
4-Chlorophenyl phenylether	EPA 8270E	ND	S	µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
4-Nitroaniline	EPA 8270E	ND		µg/kg	1870	10	08/20/25 20:24	08/18/25 11:43
4-Nitrophenol	EPA 8270E	ND	S	µg/kg	3730	10	08/20/25 20:24	08/18/25 11:43
Acenaphthene	EPA 8270E	ND		µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
Acenaphthylene	EPA 8270E	ND		µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
Acetophenone	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Anthracene	EPA 8270E	157	S	µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
Atrazine	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Benzaldehyde	EPA 8270E	ND		µg/kg	747	10	08/20/25 20:24	08/18/25 11:43

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:00
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB01 (5-6)	Lab ID: HN2511149-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Benzo(a)anthracene	EPA 8270E	291	S	µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
Benzo(a)pyrene	EPA 8270E	284	S	µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
Benzo(b)fluoranthene	EPA 8270E	388	S	µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
Benzo(g,h,i)perylene	EPA 8270E	209	S	µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
Benzo(k)fluoranthene	EPA 8270E	179	S	µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	747	10	08/20/25 20:24	08/18/25 11:43
Caprolactam	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Carbazole	EPA 8270E	ND	S	µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Chrysene	EPA 8270E	269	S	µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Dibenz(a,h) anthracene	EPA 8270E	ND	S	µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Dibenzofuran	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Diethyl phthalate	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Dimethyl phthalate	EPA 8270E	ND	S	µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Fluoranthene	EPA 8270E	605	S	µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
Fluorene	EPA 8270E	ND		µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
Hexachlorobenzene	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Hexachlorocyclopentadiene	EPA 8270E	ND	S	µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Hexachloroethane	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Indeno(1,2,3-cd) pyrene	EPA 8270E	209	S	µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
Isophorone	EPA 8270E	ND		µg/kg	1870	10	08/20/25 20:24	08/18/25 11:43
Methylphenol, Total	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Naphthalene	EPA 8270E	ND		µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
Nitrobenzene	EPA 8270E	ND		µg/kg	1870	10	08/20/25 20:24	08/18/25 11:43
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:00
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB01 (5-6) **Lab ID: HN2511149-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Pentachlorophenol	EPA 8270E	ND	S	µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Phenanthrene	EPA 8270E	396	S	µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
Phenol	EPA 8270E	ND		µg/kg	370	10	08/20/25 20:24	08/18/25 11:43
Pyrene	EPA 8270E	650		µg/kg	74.7	10	08/20/25 20:24	08/18/25 11:43
Pyridine	EPA 8270E	ND		µg/kg	1870	10	08/20/25 20:24	08/18/25 11:43
Surr: 2,4,6-Tribromophenol	EPA 8270E	25.0	S	%REC	48-94	10	08/20/25 20:24	08/18/25 11:43
Surr: 2-Fluorobiphenyl	EPA 8270E	52.2		%REC	50-103	10	08/20/25 20:24	08/18/25 11:43
Surr: 2-Fluorophenol	EPA 8270E	39.2	S	%REC	43-105	10	08/20/25 20:24	08/18/25 11:43
Surr: 4-Terphenyl-d14	EPA 8270E	60.4		%REC	55-111	10	08/20/25 20:24	08/18/25 11:43
Surr: Nitrobenzene-d5	EPA 8270E	56.4		%REC	47-100	10	08/20/25 20:24	08/18/25 11:43
Surr: Phenol-d6	EPA 8270E	47.4	S	%REC	49-110	10	08/20/25 20:24	08/18/25 11:43

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
1,1,2,2-Tetrachloroethane	EPA 8260D	ND	S	µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	123	1	08/13/25 17:44	08/11/25 17:00
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	123	1	08/13/25 17:44	08/11/25 17:00
1,2,4-Trimethylbenzene	EPA 8260D	120		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	ND		µg/kg	123	1	08/13/25 17:44	08/11/25 17:00
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	123	1	08/13/25 17:44	08/11/25 17:00
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	123	1	08/13/25 17:44	08/11/25 17:00
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	73.6	1	08/13/25 17:44	08/11/25 17:00

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:00
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB01 (5-6)	Lab ID: HN2511149-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	245	1	08/13/25 17:44	08/11/25 17:00
2-Hexanone	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Acetone	EPA 8260D	184		µg/kg	123	1	08/13/25 17:44	08/11/25 17:00
Benzene	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Bromochloromethane	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Bromodichloromethane	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Bromoform	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Carbon disulfide	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Carbon tetrachloride	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Chlorobenzene	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Chlorodibromomethane	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	123	1	08/13/25 17:44	08/11/25 17:00
Chloroform	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	73.6	1	08/13/25 17:44	08/11/25 17:00
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Cyclohexane	EPA 8260D	ND		µg/kg	123	1	08/13/25 17:44	08/11/25 17:00
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	123	1	08/13/25 17:44	08/11/25 17:00
Ethylbenzene	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Isopropylbenzene	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
m+p-Xylene	EPA 8260D	ND		µg/kg	73.6	1	08/13/25 17:44	08/11/25 17:00
Methyl acetate	EPA 8260D	ND		µg/kg	307	1	08/13/25 17:44	08/11/25 17:00
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	123	1	08/13/25 17:44	08/11/25 17:00
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	123	1	08/13/25 17:44	08/11/25 17:00
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Methylcyclohexane	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	307	1	08/13/25 17:44	08/11/25 17:00

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:00
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB01 (5-6) **Lab ID: HN2511149-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
o-Xylene	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Styrene	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND	S	µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Toluene	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Total Xylene	EPA 8260D	ND		µg/kg	110	1	08/13/25 17:44	08/11/25 17:00
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Trichloroethene (Trichloroethylene)	EPA 8260D	ND	S	µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	36.8	1	08/13/25 17:44	08/11/25 17:00
Surr: 1,2-Dichloroethane-d4	EPA 8260D	102		%REC	80-120	1	08/13/25 17:44	08/11/25 17:00
Surr: 4-Bromofluorobenzene	EPA 8260D	96.0		%REC	80-120	1	08/13/25 17:44	08/11/25 17:00
Surr: Dibromofluoromethane	EPA 8260D	87.0		%REC	80-120	1	08/13/25 17:44	08/11/25 17:00
Surr: Toluene-d8	EPA 8260D	101		%REC	80-120	1	08/13/25 17:44	08/11/25 17:00

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:05
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB02 (1-2) **Lab ID: HN2511149-002**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	8.7		%	0.1	1	08/13/25 15:37	NA
Chloride	EPA 9056A	135		mg/kg	10.9	1	08/14/25 13:59	08/13/25 16:10
Metals								
Arsenic	EPA 6020B	8.54		mg/kg	0.313	1	08/15/25 04:48	08/14/25 08:11
Barium	EPA 6020B	50.4		mg/kg	0.313	1	08/15/25 04:48	08/14/25 08:11
Cadmium	EPA 6020B	0.133		mg/kg	0.125	1	08/15/25 04:48	08/14/25 08:11
Chromium	EPA 6020B	10.8		mg/kg	0.313	1	08/15/25 04:48	08/14/25 08:11
Copper	EPA 6020B	12.0		mg/kg	0.313	1	08/15/25 04:48	08/14/25 08:11
Lead	EPA 6020B	25.9		mg/kg	0.313	1	08/15/25 04:48	08/14/25 08:11
Selenium	EPA 6020B	0.344		mg/kg	0.313	1	08/15/25 04:48	08/14/25 08:11
Silver	EPA 6020B	ND		mg/kg	0.313	1	08/15/25 04:48	08/14/25 08:11
Zinc	EPA 6020B	52.6		mg/kg	6.26	10	08/15/25 17:42	08/14/25 08:11
Mercury	EPA 7471B	0.0491		mg/kg	0.0200	1	08/13/25 09:35	08/12/25 15:08
Organochlorine Pesticides by GC/ECD								
4,4'-DDD	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
4,4'-DDE	EPA 8081B	27.3		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
4,4'-DDT	EPA 8081B	12.9		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
Aldrin	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
alpha-BHC	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
beta-BHC	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
Chlordane, Technical	EPA 8081B	ND		µg/kg	27.2	1	08/23/25 19:02	08/19/25 10:41
cis-Chlordane	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
delta-BHC	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
Dieldrin	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
Endosulfan I	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
Endosulfan II	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
Endosulfan sulfate	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
Endrin	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
Endrin aldehyde	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
Endrin ketone	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
gamma-BHC (Lindane)	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:05
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB02 (1-2)	Lab ID: HN2511149-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Heptachlor	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
Heptachlor epoxide	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
Methoxychlor	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
Toxaphene	EPA 8081B	ND		µg/kg	65.2	1	08/23/25 19:02	08/19/25 10:41
trans-Chlordane	EPA 8081B	ND		µg/kg	10.9	1	08/23/25 19:02	08/19/25 10:41
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	68.4		%REC	53-151	1	08/23/25 19:02	08/19/25 10:41
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	69.2		%REC	67-127	1	08/23/25 19:02	08/19/25 10:41

Semivolatile Organic Compounds by GC

Aroclor 1016	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 18:48	08/19/25 12:11
Aroclor 1221	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 18:48	08/19/25 12:11
Aroclor 1232	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 18:48	08/19/25 12:11
Aroclor 1242	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 18:48	08/19/25 12:11
Aroclor 1248	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 18:48	08/19/25 12:11
Aroclor 1254	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 18:48	08/19/25 12:11
Aroclor 1260	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 18:48	08/19/25 12:11
Aroclor 1262	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 18:48	08/19/25 12:11
Aroclor 1268	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 18:48	08/19/25 12:11
Total PCB	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 18:48	08/19/25 12:11
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	101		%REC	54-146	1	08/20/25 18:48	08/19/25 12:11
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	79.2		%REC	58-140	1	08/20/25 18:48	08/19/25 12:11
2,4,5-T	EPA 8151A	ND		µg/kg	5.45	1	08/21/25 22:22	08/20/25 07:35
2,4,5-TP (Silvex)	EPA 8151A	ND		µg/kg	5.45	1	08/21/25 22:22	08/20/25 07:35
2,4-D	EPA 8151A	ND		µg/kg	10.9	1	08/21/25 22:22	08/20/25 07:35
<i>Surr: DCAA</i>	<i>EPA 8151A</i>	58.0		%REC	10-116	1	08/21/25 22:22	08/20/25 07:35

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	3640	10	08/20/25 23:41	08/18/25 11:43
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	1820	10	08/20/25 23:41	08/18/25 11:43
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:05
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB02 (1-2) **Lab ID: HN2511149-002**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	729	10	08/20/25 23:41	08/18/25 11:43
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
2,4-Dinitrophenol	EPA 8270E	ND		µg/kg	3640	10	08/20/25 23:41	08/18/25 11:43
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
2-Chlorophenol	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
2-Nitroaniline	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
2-Nitrophenol	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
3&4-Methylphenol	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	1820	10	08/20/25 23:41	08/18/25 11:43
3-Nitroaniline	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
4-Chloroaniline	EPA 8270E	ND		µg/kg	729	10	08/20/25 23:41	08/18/25 11:43
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
4-Nitroaniline	EPA 8270E	ND		µg/kg	1820	10	08/20/25 23:41	08/18/25 11:43
4-Nitrophenol	EPA 8270E	ND		µg/kg	3640	10	08/20/25 23:41	08/18/25 11:43
Acenaphthene	EPA 8270E	ND		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
Acenaphthylene	EPA 8270E	ND		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
Acetophenone	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Anthracene	EPA 8270E	87.5		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
Atrazine	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Benzaldehyde	EPA 8270E	ND		µg/kg	729	10	08/20/25 23:41	08/18/25 11:43

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:05
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB02 (1-2)	Lab ID: HN2511149-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Benzo(a)anthracene	EPA 8270E	211		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
Benzo(a)pyrene	EPA 8270E	211		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
Benzo(b)fluoranthene	EPA 8270E	306		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
Benzo(g,h,i)perylene	EPA 8270E	160		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
Benzo(k)fluoranthene	EPA 8270E	117		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	729	10	08/20/25 23:41	08/18/25 11:43
Caprolactam	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Carbazole	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Chrysene	EPA 8270E	175		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Dibenzofuran	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Diethyl phthalate	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Dimethyl phthalate	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Fluoranthene	EPA 8270E	379		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
Fluorene	EPA 8270E	ND		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
Hexachlorobenzene	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Hexachloroethane	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Indeno(1,2,3-cd) pyrene	EPA 8270E	138		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
Isophorone	EPA 8270E	ND		µg/kg	1820	10	08/20/25 23:41	08/18/25 11:43
Methylphenol, Total	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Naphthalene	EPA 8270E	ND		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
Nitrobenzene	EPA 8270E	ND		µg/kg	1820	10	08/20/25 23:41	08/18/25 11:43
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:05
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB02 (1-2) **Lab ID: HN2511149-002**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Pentachlorophenol	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Phenanthrene	EPA 8270E	146		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
Phenol	EPA 8270E	ND		µg/kg	361	10	08/20/25 23:41	08/18/25 11:43
Pyrene	EPA 8270E	408		µg/kg	72.9	10	08/20/25 23:41	08/18/25 11:43
Pyridine	EPA 8270E	ND		µg/kg	1820	10	08/20/25 23:41	08/18/25 11:43
Surr: 2,4,6-Tribromophenol	EPA 8270E	71.0		%REC	48-94	10	08/20/25 23:41	08/18/25 11:43
Surr: 2-Fluorobiphenyl	EPA 8270E	65.4		%REC	50-103	10	08/20/25 23:41	08/18/25 11:43
Surr: 2-Fluorophenol	EPA 8270E	62.4		%REC	43-105	10	08/20/25 23:41	08/18/25 11:43
Surr: 4-Terphenyl-d14	EPA 8270E	71.4		%REC	55-111	10	08/20/25 23:41	08/18/25 11:43
Surr: Nitrobenzene-d5	EPA 8270E	73.6		%REC	47-100	10	08/20/25 23:41	08/18/25 11:43
Surr: Phenol-d6	EPA 8270E	64.2		%REC	49-110	10	08/20/25 23:41	08/18/25 11:43

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	120	1	08/13/25 18:00	08/11/25 17:00
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	120	1	08/13/25 18:00	08/11/25 17:00
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	ND		µg/kg	120	1	08/13/25 18:00	08/11/25 17:00
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	120	1	08/13/25 18:00	08/11/25 17:00
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	120	1	08/13/25 18:00	08/11/25 17:00
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	71.8	1	08/13/25 18:00	08/11/25 17:00

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:05
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB02 (1-2)	Lab ID: HN2511149-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	239	1	08/13/25 18:00	08/11/25 17:00
2-Hexanone	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Acetone	EPA 8260D	141		µg/kg	120	1	08/13/25 18:00	08/11/25 17:00
Benzene	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Bromochloromethane	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Bromodichloromethane	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Bromoform	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Carbon disulfide	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Carbon tetrachloride	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Chlorobenzene	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Chlorodibromomethane	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	120	1	08/13/25 18:00	08/11/25 17:00
Chloroform	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	71.8	1	08/13/25 18:00	08/11/25 17:00
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Cyclohexane	EPA 8260D	ND		µg/kg	120	1	08/13/25 18:00	08/11/25 17:00
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	120	1	08/13/25 18:00	08/11/25 17:00
Ethylbenzene	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Isopropylbenzene	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
m+p-Xylene	EPA 8260D	ND		µg/kg	71.8	1	08/13/25 18:00	08/11/25 17:00
Methyl acetate	EPA 8260D	ND		µg/kg	299	1	08/13/25 18:00	08/11/25 17:00
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	120	1	08/13/25 18:00	08/11/25 17:00
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	120	1	08/13/25 18:00	08/11/25 17:00
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Methylcyclohexane	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	299	1	08/13/25 18:00	08/11/25 17:00

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:05
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB02 (1-2) **Lab ID: HN2511149-002**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
o-Xylene	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Styrene	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Toluene	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Total Xylene	EPA 8260D	ND		µg/kg	108	1	08/13/25 18:00	08/11/25 17:00
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	35.9	1	08/13/25 18:00	08/11/25 17:00
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	102		%REC	80-120	1	08/13/25 18:00	08/11/25 17:00
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	91.4		%REC	80-120	1	08/13/25 18:00	08/11/25 17:00
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	88.8		%REC	80-120	1	08/13/25 18:00	08/11/25 17:00
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	99.4		%REC	80-120	1	08/13/25 18:00	08/11/25 17:00

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:10
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB03 (3-4) **Lab ID: HN2511149-003**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	8.4		%	0.1	1	08/13/25 15:37	NA
Chloride	EPA 9056A	101		mg/kg	10.8	1	08/14/25 14:07	08/13/25 16:10
Metals								
Arsenic	EPA 6020B	7.44		mg/kg	0.328	1	08/15/25 04:51	08/14/25 08:11
Barium	EPA 6020B	56.2		mg/kg	0.328	1	08/15/25 04:51	08/14/25 08:11
Cadmium	EPA 6020B	0.168		mg/kg	0.131	1	08/15/25 04:51	08/14/25 08:11
Chromium	EPA 6020B	22.4		mg/kg	0.328	1	08/15/25 04:51	08/14/25 08:11
Copper	EPA 6020B	20.4		mg/kg	3.28	10	08/15/25 17:44	08/14/25 08:11
Lead	EPA 6020B	43.1		mg/kg	0.328	1	08/15/25 04:51	08/14/25 08:11
Selenium	EPA 6020B	ND		mg/kg	0.328	1	08/15/25 04:51	08/14/25 08:11
Silver	EPA 6020B	ND		mg/kg	0.328	1	08/15/25 04:51	08/14/25 08:11
Zinc	EPA 6020B	73.5		mg/kg	6.56	10	08/15/25 17:44	08/14/25 08:11
Mercury	EPA 7471B	0.0623		mg/kg	0.0208	1	08/13/25 09:37	08/12/25 15:08
Organochlorine Pesticides by GC/ECD								
4,4'-DDD	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
4,4'-DDE	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
4,4'-DDT	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
Aldrin	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
alpha-BHC	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
beta-BHC	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
Chlordane, Technical	EPA 8081B	ND		µg/kg	2720	100	08/26/25 20:16	08/19/25 10:41
cis-Chlordane	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
delta-BHC	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
Dieldrin	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
Endosulfan I	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
Endosulfan II	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
Endosulfan sulfate	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
Endrin	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
Endrin aldehyde	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
Endrin ketone	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
gamma-BHC (Lindane)	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:10
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB03 (3-4)	Lab ID: HN2511149-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Heptachlor	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
Heptachlor epoxide	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
Methoxychlor	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
Toxaphene	EPA 8081B	ND		µg/kg	6520	100	08/26/25 20:16	08/19/25 10:41
trans-Chlordane	EPA 8081B	ND		µg/kg	1090	100	08/26/25 20:16	08/19/25 10:41
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	165	<i>S</i>	<i>%REC</i>	<i>53-151</i>	<i>100</i>	<i>08/26/25 20:16</i>	<i>08/19/25 10:41</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	95.0		<i>%REC</i>	<i>67-127</i>	<i>100</i>	<i>08/26/25 20:16</i>	<i>08/19/25 10:41</i>

Semivolatile Organic Compounds by GC								
Aroclor 1016	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 19:02	08/19/25 12:11
Aroclor 1221	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 19:02	08/19/25 12:11
Aroclor 1232	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 19:02	08/19/25 12:11
Aroclor 1242	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 19:02	08/19/25 12:11
Aroclor 1248	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 19:02	08/19/25 12:11
Aroclor 1254	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 19:02	08/19/25 12:11
Aroclor 1260	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 19:02	08/19/25 12:11
Aroclor 1262	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 19:02	08/19/25 12:11
Aroclor 1268	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 19:02	08/19/25 12:11
Total PCB	EPA 8082A	ND		µg/kg	72.4	1	08/20/25 19:02	08/19/25 12:11
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	105		<i>%REC</i>	<i>54-146</i>	<i>1</i>	<i>08/20/25 19:02</i>	<i>08/19/25 12:11</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	79.1		<i>%REC</i>	<i>58-140</i>	<i>1</i>	<i>08/20/25 19:02</i>	<i>08/19/25 12:11</i>
2,4,5-T	EPA 8151A	ND		µg/kg	5.29	1	08/21/25 22:09	08/20/25 07:35
2,4,5-TP (Silvex)	EPA 8151A	ND		µg/kg	5.29	1	08/21/25 22:09	08/20/25 07:35
2,4-D	EPA 8151A	ND		µg/kg	10.6	1	08/21/25 22:09	08/20/25 07:35
<i>Surr: DCAA</i>	<i>EPA 8151A</i>	42.0		<i>%REC</i>	<i>10-116</i>	<i>1</i>	<i>08/21/25 22:09</i>	<i>08/20/25 07:35</i>

Semivolatile Organic Compounds by GC-MS								
1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	7260	20	08/21/25 00:03	08/18/25 11:43
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	3630	20	08/21/25 00:03	08/18/25 11:43
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:10
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB03 (3-4) **Lab ID: HN2511149-003**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	1450	20	08/21/25 00:03	08/18/25 11:43
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
2,4-Dinitrophenol	EPA 8270E	ND		µg/kg	7260	20	08/21/25 00:03	08/18/25 11:43
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
2-Chlorophenol	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
2-Nitroaniline	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
2-Nitrophenol	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
3&4-Methylphenol	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	3630	20	08/21/25 00:03	08/18/25 11:43
3-Nitroaniline	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
4-Chloroaniline	EPA 8270E	ND		µg/kg	1450	20	08/21/25 00:03	08/18/25 11:43
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
4-Nitroaniline	EPA 8270E	ND		µg/kg	3630	20	08/21/25 00:03	08/18/25 11:43
4-Nitrophenol	EPA 8270E	ND		µg/kg	7260	20	08/21/25 00:03	08/18/25 11:43
Acenaphthene	EPA 8270E	ND		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
Acenaphthylene	EPA 8270E	ND		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
Acetophenone	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Anthracene	EPA 8270E	ND		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
Atrazine	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Benzaldehyde	EPA 8270E	ND		µg/kg	1450	20	08/21/25 00:03	08/18/25 11:43

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:10
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB03 (3-4)	Lab ID: HN2511149-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Benzo(a)anthracene	EPA 8270E	291		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
Benzo(a)pyrene	EPA 8270E	291		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
Benzo(b)fluoranthene	EPA 8270E	450		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
Benzo(g,h,i)perylene	EPA 8270E	232		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
Benzo(k)fluoranthene	EPA 8270E	174		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	1450	20	08/21/25 00:03	08/18/25 11:43
Caprolactam	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Carbazole	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Chrysene	EPA 8270E	262		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Dibenzofuran	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Diethyl phthalate	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Dimethyl phthalate	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Fluoranthene	EPA 8270E	698		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
Fluorene	EPA 8270E	ND		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
Hexachlorobenzene	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Hexachloroethane	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Indeno(1,2,3-cd) pyrene	EPA 8270E	203		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
Isophorone	EPA 8270E	ND		µg/kg	3630	20	08/21/25 00:03	08/18/25 11:43
Methylphenol, Total	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Naphthalene	EPA 8270E	ND		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
Nitrobenzene	EPA 8270E	ND		µg/kg	3630	20	08/21/25 00:03	08/18/25 11:43
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:10
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB03 (3-4)	Lab ID: HN2511149-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Pentachlorophenol	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Phenanthrene	EPA 8270E	363		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
Phenol	EPA 8270E	ND		µg/kg	719	20	08/21/25 00:03	08/18/25 11:43
Pyrene	EPA 8270E	828		µg/kg	145	20	08/21/25 00:03	08/18/25 11:43
Pyridine	EPA 8270E	ND		µg/kg	3630	20	08/21/25 00:03	08/18/25 11:43
Surr: 2,4,6-Tribromophenol	EPA 8270E	45.6	S	%REC	48-94	20	08/21/25 00:03	08/18/25 11:43
Surr: 2-Fluorobiphenyl	EPA 8270E	58.0		%REC	50-103	20	08/21/25 00:03	08/18/25 11:43
Surr: 2-Fluorophenol	EPA 8270E	47.6		%REC	43-105	20	08/21/25 00:03	08/18/25 11:43
Surr: 4-Terphenyl-d14	EPA 8270E	63.6		%REC	55-111	20	08/21/25 00:03	08/18/25 11:43
Surr: Nitrobenzene-d5	EPA 8270E	65.2		%REC	47-100	20	08/21/25 00:03	08/18/25 11:43
Surr: Phenol-d6	EPA 8270E	54.0		%REC	49-110	20	08/21/25 00:03	08/18/25 11:43

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	118	1	08/13/25 18:16	08/11/25 17:00
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	118	1	08/13/25 18:16	08/11/25 17:00
1,2,4-Trimethylbenzene	EPA 8260D	115		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	ND		µg/kg	118	1	08/13/25 18:16	08/11/25 17:00
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	118	1	08/13/25 18:16	08/11/25 17:00
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	118	1	08/13/25 18:16	08/11/25 17:00
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	70.5	1	08/13/25 18:16	08/11/25 17:00

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:10
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB03 (3-4) **Lab ID: HN2511149-003**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	235	1	08/13/25 18:16	08/11/25 17:00
2-Hexanone	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Acetone	EPA 8260D	360		µg/kg	118	1	08/13/25 18:16	08/11/25 17:00
Benzene	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Bromochloromethane	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Bromodichloromethane	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Bromoform	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Carbon disulfide	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Carbon tetrachloride	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Chlorobenzene	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Chlorodibromomethane	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	118	1	08/13/25 18:16	08/11/25 17:00
Chloroform	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	70.5	1	08/13/25 18:16	08/11/25 17:00
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Cyclohexane	EPA 8260D	ND		µg/kg	118	1	08/13/25 18:16	08/11/25 17:00
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	118	1	08/13/25 18:16	08/11/25 17:00
Ethylbenzene	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Isopropylbenzene	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
m+p-Xylene	EPA 8260D	ND		µg/kg	70.5	1	08/13/25 18:16	08/11/25 17:00
Methyl acetate	EPA 8260D	327		µg/kg	294	1	08/13/25 18:16	08/11/25 17:00
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	118	1	08/13/25 18:16	08/11/25 17:00
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	118	1	08/13/25 18:16	08/11/25 17:00
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Methylcyclohexane	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	294	1	08/13/25 18:16	08/11/25 17:00

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID

Work Order: HN2511149
Date Collected: 08/08/25 14:10
Date Received: 08/09/25 08:00

CLIENT ID: 3751 SB03 (3-4) **Lab ID: HN2511149-003**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
o-Xylene	EPA 8260D	35.3		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Styrene	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Toluene	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Total Xylene	EPA 8260D	ND		µg/kg	106	1	08/13/25 18:16	08/11/25 17:00
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	35.3	1	08/13/25 18:16	08/11/25 17:00
Surr: 1,2-Dichloroethane-d4	EPA 8260D	94.4		%REC	80-120	1	08/13/25 18:16	08/11/25 17:00
Surr: 4-Bromofluorobenzene	EPA 8260D	92.0		%REC	80-120	1	08/13/25 18:16	08/11/25 17:00
Surr: Dibromofluoromethane	EPA 8260D	87.7		%REC	80-120	1	08/13/25 18:16	08/11/25 17:00
Surr: Toluene-d8	EPA 8260D	101		%REC	80-120	1	08/13/25 18:16	08/11/25 17:00



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2157868

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3396624

General Chemistry Parameters

MB	CLIENT ID: Method Blank	Lab ID: QC-2157868-001
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 08/13/25 15:37
Prep Date: NA

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

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2157868-002
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 08/13/25 15:37
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	98-102			

The following samples were analyzed in this batch: HN2511149-001, HN2511149-002, HN2511149-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2158214

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3403361

General Chemistry Parameters

MB	CLIENT ID: Method Blank	Lab ID: QC-2158214-001
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 08/14/25 13:19
Prep Date: 08/13/25 16:11

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

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2158214-002
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 08/14/25 13:27
Prep Date: 08/13/25 16:11

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	99.2	mg/kg	10.0	100		99.2	87-110			

MS	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2158214-004
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 08/14/25 13:43
Prep Date: 08/13/25 16:11

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	202	mg/kg	11.4	99.8	130	88.0	87-110			E

MSD	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2158214-005
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 08/14/25 13:51
Prep Date: 08/13/25 16:11

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	199	mg/kg	11.4	100	130	85.1	87-110	1.35	15	S

The following samples were analyzed in this batch: HN2511149-001, HN2511149-002, HN2511149-003



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2154842

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3393374

Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2154842-001
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 08/13/25 08:58
Prep Date: 08/12/25 15:09

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

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2154842-002
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 08/13/25 08:59
Prep Date: 08/12/25 15:09

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.160	mg/kg	0.0200	0.1665		96.1	80-120			

The following samples were analyzed in this batch: HN2511149-001, HN2511149-002, HN2511149-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2159430

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3400811

Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2159430-001
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/15/25 04:36
Prep Date: 08/14/25 08:12

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	ND	mg/kg	0.250							
Barium	ND	mg/kg	0.250							
Cadmium	ND	mg/kg	0.100							
Chromium	ND	mg/kg	0.250							
Copper	ND	mg/kg	0.250							
Lead	ND	mg/kg	0.250							
Selenium	ND	mg/kg	0.250							
Silver	ND	mg/kg	0.250							
Zinc	ND	mg/kg	0.500							

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2159430-002
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/15/25 04:38
Prep Date: 08/14/25 08:12

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	4.84	mg/kg	0.250	5		96.8	80-120			
Barium	4.90	mg/kg	0.250	5		98.0	80-120			
Cadmium	4.88	mg/kg	0.100	5		97.7	80-120			
Chromium	4.97	mg/kg	0.250	5		99.4	80-120			
Copper	5.14	mg/kg	0.250	5		103	80-120			
Lead	4.96	mg/kg	0.250	5		99.2	80-120			
Selenium	4.91	mg/kg	0.250	5		98.2	80-120			
Silver	4.77	mg/kg	0.250	5		95.4	80-120			
Zinc	4.91	mg/kg	0.500	5		98.2	80-120			

MS	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2159430-004
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/15/25 04:43
Prep Date: 08/14/25 08:12

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Barium	55.6	mg/kg	0.346	5	58.7	NC	75-125			O
Cadmium	4.77	mg/kg	0.139	6.0827	0.171	75.9	75-125			
Lead	28.3	mg/kg	0.346	5	31.2	NC	75-125			O
Selenium	5.03	mg/kg	0.346	6.0827	ND	78.9	75-125			

MSD	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2159430-005
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/15/25 04:46
Prep Date: 08/14/25 08:12

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Barium	78.3	mg/kg	0.351	5	58.7	NC	75-125	34.0	20	OR
Cadmium	4.86	mg/kg	0.140	6.1652	0.171	76.4	75-125	1.90	20	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2159430

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3400811

MSD	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2159430-005
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/15/25 04:46
Prep Date: 08/14/25 08:12

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Lead	51.6	mg/kg	0.351	5	31.2	NC	75-125	58.3	20	OR
Selenium	5.24	mg/kg	0.351	6.1652	ND	81.3	75-125	4.08	20	

The following samples were analyzed in this batch: HN2511149-001, HN2511149-002, HN2511149-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2159430

Work Order: HN2511149
Date Collected: 08/08/25 14:00
Date Received: 08/09/25 08:00
Run ID: 3405204

Metals

MS	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2159430-004
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/15/25 17:34
Prep Date: 08/14/25 08:12

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	16.4	mg/kg	3.46	6.0827	14.8	56.5	75-125			S
Chromium	19.7	mg/kg	3.46	5	28.4	NC	75-125			O
Copper	19.8	mg/kg	3.46	6.0827	18.2	62.9	75-125			S
Silver	5.86	mg/kg	3.46	6.0827	ND	95.8	75-125			
Zinc	52.4	mg/kg	6.93	5	66.6	NC	75-125			O

MSD	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2159430-005
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/15/25 17:36
Prep Date: 08/14/25 08:12

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	18.2	mg/kg	3.51	6.1652	14.8	85.5	75-125	10.6	20	
Chromium	26.7	mg/kg	3.51	5	28.4	NC	75-125	30.4	20	OR
Copper	27.9	mg/kg	3.51	6.1652	18.2	195	75-125	34.3	20	RS
Silver	7.02	mg/kg	3.51	6.1652	ND	113	75-125	18.0	20	
Zinc	86.6	mg/kg	7.02	5	66.6	NC	75-125	49.2	20	OR

PDS	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2159430-007
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/15/25 17:40
Prep Date: 08/14/25 08:12

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	70.5	mg/kg	3.36	59.032	14.8	97.5	75-125			
Chromium	80.4	mg/kg	3.36	59.032	28.4	94.0	75-125			
Copper	70.7	mg/kg	3.36	59.032	18.2	92.8	75-125			
Silver	60.5	mg/kg	3.36	59.032	ND	102	75-125			
Zinc	108	mg/kg	6.73	59.032	66.6	84.5	75-125			

The following samples were analyzed in this batch: HN2511149-001, HN2511149-002, HN2511149-003



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2167835

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3432577

Organochlorine Pesticides by GC/ECD

MB	CLIENT ID: Method Blank	Lab ID: QC-2167835-001
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Method: EPA 8081B**Dilution:** 1**Analysis Date:** 08/22/25 22:34**Prep Date:** 08/19/25 10:42

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	ND	µg/kg	10.0							
4,4'-DDE	ND	µg/kg	10.0							
4,4'-DDT	ND	µg/kg	10.0							
Aldrin	ND	µg/kg	10.0							
alpha-BHC	ND	µg/kg	10.0							
beta-BHC	ND	µg/kg	10.0							
Chlordane, Technical	ND	µg/kg	25.0							
cis-Chlordane	ND	µg/kg	10.0							
delta-BHC	ND	µg/kg	10.0							
Dieldrin	ND	µg/kg	10.0							
Endosulfan I	ND	µg/kg	10.0							
Endosulfan II	ND	µg/kg	10.0							
Endosulfan sulfate	ND	µg/kg	10.0							
Endrin	ND	µg/kg	10.0							
Endrin aldehyde	ND	µg/kg	10.0							
Endrin ketone	ND	µg/kg	10.0							
gamma-BHC (Lindane)	ND	µg/kg	10.0							
Heptachlor	ND	µg/kg	10.0							
Heptachlor epoxide	ND	µg/kg	10.0							
Methoxychlor	ND	µg/kg	10.0							
Toxaphene	ND	µg/kg	60.0							
trans-Chlordane	ND	µg/kg	10.0							
Surr: Decachlorobiphenyl	41.1	µg/kg		33.33		123	53-151			
Surr: Tetrachloro-m-xylene	33.7	µg/kg		33.33		101	67-127			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2167835-002
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Method: EPA 8081B**Dilution:** 1**Analysis Date:** 08/22/25 23:03**Prep Date:** 08/19/25 10:42

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	36.4	µg/kg	10.0	33.33		109	55-141			
4,4'-DDE	35.1	µg/kg	10.0	33.33		105	55-143			
4,4'-DDT	39.1	µg/kg	10.0	33.33		117	50-144			
Aldrin	34.8	µg/kg	10.0	33.33		104	57-141			
alpha-BHC	34.8	µg/kg	10.0	33.33		104	58-144			
beta-BHC	35.4	µg/kg	10.0	33.33		106	55-147			
cis-Chlordane	34.8	µg/kg	10.0	33.33		104	58-142			
delta-BHC	35.3	µg/kg	10.0	33.33		106	59-142			
Dieldrin	34.8	µg/kg	10.0	33.33		104	59-142			
Endosulfan I	35.5	µg/kg	10.0	33.33		106	57-145			
Endosulfan II	36.8	µg/kg	10.0	33.33		110	58-138			
Endosulfan sulfate	35.8	µg/kg	10.0	33.33		108	54-136			
Endrin	36.6	µg/kg	10.0	33.33		110	45-150			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2167835

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3432577

LCS		CLIENT ID: Laboratory Control Sample				Lab ID: QC-2167835-002			
Method: EPA 8081B		Dilution: 1		Analysis Date: 08/22/25 23:03		Prep Date: 08/19/25 10:42			
Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit Qual
Endrin aldehyde	41.9	µg/kg	10.0	33.33		126	41-147		
Endrin ketone	36.8	µg/kg	10.0	33.33		110	54-146		
gamma-BHC (Lindane)	35.3	µg/kg	10.0	33.33		106	58-145		
Heptachlor	36.2	µg/kg	10.0	33.33		109	51-145		
Heptachlor epoxide	35.0	µg/kg	10.0	33.33		105	59-143		
Methoxychlor	37.6	µg/kg	10.0	33.33		113	43-144		
trans-Chlordane	35.2	µg/kg	10.0	33.33		106	56-145		
Surr: Decachlorobiphenyl	41.0	µg/kg		33.33		123	51-151		
Surr: Tetrachloro-m-xylene	32.4	µg/kg		33.33		97.2	67-127		

The following samples were analyzed in this batch: HN2511149-001, HN2511149-002, HN2511149-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2167835

Work Order: HN2511149
Date Collected: 08/08/25 14:00
Date Received: 08/09/25 08:00
Run ID: 3440418

Organochlorine Pesticides by GC/ECD

MS	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2167835-005
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Method: EPA 8081B

Dilution: 100

Analysis Date: 08/27/25 06:04

Prep Date: 08/19/25 10:42

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	ND	µg/kg	1670	48.919	ND	94.8	55-141			
4,4'-DDE	ND	µg/kg	1670	48.919	ND	115	55-143			
4,4'-DDT	ND	µg/kg	1670	48.919	ND	99.7	50-144			
Aldrin	ND	µg/kg	1670	48.919	ND	125	57-141			
alpha-BHC	ND	µg/kg	1670	48.919	ND	115	58-144			
beta-BHC	ND	µg/kg	1670	48.919	ND	0.00	55-147			S
cis-Chlordane	ND	µg/kg	1670	48.919	ND	130	58-142			
delta-BHC	ND	µg/kg	1670	48.919	ND	99.8	59-142			
Dieldrin	ND	µg/kg	1670	48.919	ND	115	59-142			
Endosulfan I	ND	µg/kg	1670	48.919	ND	115	57-145			
Endosulfan II	ND	µg/kg	1670	48.919	ND	120	58-138			
Endosulfan sulfate	ND	µg/kg	1670	48.919	ND	120	54-135			
Endrin	ND	µg/kg	1670	48.919	ND	125	45-150			
Endrin aldehyde	ND	µg/kg	1670	48.919	ND	95.0	41-147			
Endrin ketone	ND	µg/kg	1670	48.919	ND	110	54-146			
gamma-BHC (Lindane)	ND	µg/kg	1670	48.919	ND	135	58-145			
Heptachlor	ND	µg/kg	1670	48.919	ND	120	51-145			
Heptachlor epoxide	ND	µg/kg	1670	48.919	ND	100	59-143			
Methoxychlor	ND	µg/kg	1670	48.919	ND	115	43-144			
trans-Chlordane	ND	µg/kg	1670	48.919	ND	140	56-145			
Surr: Decachlorobiphenyl	93.0	µg/kg		48.919		190	53-151			S
Surr: Tetrachloro-m-xylene	53.8	µg/kg		48.919		110	67-127			

MSD	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2167835-006
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Method: EPA 8081B

Dilution: 100

Analysis Date: 08/27/25 06:19

Prep Date: 08/19/25 10:42

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	ND	µg/kg	1680	49.305	ND	116	55-141	0.786	20	
4,4'-DDE	ND	µg/kg	1680	49.305	ND	126	55-143	0.786	20	
4,4'-DDT	ND	µg/kg	1680	49.305	ND	101	50-144	0.786	20	
Aldrin	ND	µg/kg	1680	49.305	ND	130	57-141	0.786	20	
alpha-BHC	ND	µg/kg	1680	49.305	ND	115	58-144	0.786	20	
beta-BHC	ND	µg/kg	1680	49.305	ND	50.0	55-147	0.786	20	S
cis-Chlordane	ND	µg/kg	1680	49.305	ND	135	58-142	0.786	20	
delta-BHC	ND	µg/kg	1680	49.305	ND	100	59-142	0.786	20	
Dieldrin	ND	µg/kg	1680	49.305	ND	125	59-142	0.786	20	
Endosulfan I	ND	µg/kg	1680	49.305	ND	120	57-145	0.786	20	
Endosulfan II	ND	µg/kg	1680	49.305	ND	130	58-138	0.786	20	
Endosulfan sulfate	ND	µg/kg	1680	49.305	ND	115	54-135	0.786	20	
Endrin	ND	µg/kg	1680	49.305	ND	125	45-150	0.786	20	
Endrin aldehyde	ND	µg/kg	1680	49.305	ND	105	41-147	0.786	20	
Endrin ketone	ND	µg/kg	1680	49.305	ND	115	54-146	0.786	20	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2167835

Work Order: HN2511149
Date Collected: 08/08/25 14:00
Date Received: 08/09/25 08:00
Run ID: 3440418

MSD	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2167835-006
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Method: EPA 8081B

Dilution: 100

Analysis Date: 08/27/25 06:19

Prep Date: 08/19/25 10:42

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
gamma-BHC (Lindane)	ND	µg/kg	1680	49.305	ND	135	58-145	0.786	20	
Heptachlor	ND	µg/kg	1680	49.305	ND	125	51-145	0.786	20	
Heptachlor epoxide	ND	µg/kg	1680	49.305	ND	105	59-143	0.786	20	
Methoxychlor	ND	µg/kg	1680	49.305	ND	130	43-144	0.786	20	
trans-Chlordane	ND	µg/kg	1680	49.305	ND	145	56-145	0.786	20	
<i>Surr: Decachlorobiphenyl</i>	88.8	<i>µg/kg</i>		49.305		180	53-151	4.62	30	S
<i>Surr: Tetrachloro-m-xylene</i>	54.2	<i>µg/kg</i>		49.305		110	67-127	0.786	30	

The following samples were analyzed in this batch: HN2511149-001, HN2511149-002, HN2511149-003



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2167839

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3421877

Semivolatile Organic Compounds by GC

MB	CLIENT ID: Method Blank	Lab ID: QC-2167839-001
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Method: EPA 8082A **Dilution:** 1 **Analysis Date:** 08/20/25 23:44
Prep Date: 08/19/25 12:12

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	ND	µg/kg	66.7							
Aroclor 1221	ND	µg/kg	66.7							
Aroclor 1232	ND	µg/kg	66.7							
Aroclor 1242	ND	µg/kg	66.7							
Aroclor 1248	ND	µg/kg	66.7							
Aroclor 1254	ND	µg/kg	66.7							
Aroclor 1260	ND	µg/kg	66.7							
Aroclor 1262	ND	µg/kg	66.7							
Aroclor 1268	ND	µg/kg	66.7							
Total PCB	ND	µg/kg	66.7							
Surr: Decachlorobiphenyl	41.6	µg/kg		33.3		125	54-146			
Surr: Tetrachloro-m-xylene	35.5	µg/kg		33.3		106	58-140			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2167839-002
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Method: EPA 8082A **Dilution:** 1 **Analysis Date:** 08/20/25 23:56
Prep Date: 08/19/25 12:12

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	863	µg/kg	66.7	833		104	71-135			
Aroclor 1260	925	µg/kg	66.7	833		111	67-135			
Surr: Decachlorobiphenyl	42.5	µg/kg		33.3		128	54-146			
Surr: Tetrachloro-m-xylene	35.2	µg/kg		33.3		106	58-140			

MS	CLIENT ID: 3751 SB02 (1-2)	Lab ID: QC-2167839-005
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Method: EPA 8082A **Dilution:** 1 **Analysis Date:** 08/21/25 00:08
Prep Date: 08/19/25 12:12

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	750	µg/kg	72.3	824.75	ND	91.0	71-135			
Aroclor 1260	782	µg/kg	72.3	824.75	ND	94.8	67-135			
Surr: Decachlorobiphenyl	39.3	µg/kg		32.97		119	54-146			
Surr: Tetrachloro-m-xylene	27.2	µg/kg		32.97		82.6	58-140			

MSD	CLIENT ID: 3751 SB02 (1-2)	Lab ID: QC-2167839-006
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Method: EPA 8082A **Dilution:** 1 **Analysis Date:** 08/21/25 00:20
Prep Date: 08/19/25 12:12

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	697	µg/kg	72.4	826.39	ND	84.4	71-135	7.36	20	
Aroclor 1260	681	µg/kg	72.4	826.39	ND	82.4	67-135	13.8	20	
Surr: Decachlorobiphenyl	35.4	µg/kg		33.036		107	54-146	10.4	30	
Surr: Tetrachloro-m-xylene	25.8	µg/kg		33.036		78.3	58-140	5.15	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2167839

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3421877

The following samples were analyzed in this batch: HN2511149-001, HN2511149-002, HN2511149-003



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2170067

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3418607

Semivolatile Organic Compounds by GC

MB	CLIENT ID: Method Blank	Lab ID: QC-2170067-001
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 08/21/25 17:49
Prep Date: 08/20/25 07:36

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	ND	µg/kg	5.00							
2,4,5-TP (Silvex)	ND	µg/kg	5.00							
2,4-D	ND	µg/kg	10.0							
Surr: DCAA	28.0	µg/kg		50		56.0	10-116			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2170067-002
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 08/21/25 17:00
Prep Date: 08/20/25 07:36

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	34.0	µg/kg	5.00	50		68.0	10-119			
2,4,5-TP (Silvex)	34.0	µg/kg	5.00	50		68.0	10-101			
2,4-D	36.0	µg/kg	10.0	50		72.0	10-128			
Surr: DCAA	35.0	µg/kg		50		70.0	10-116			

MS	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2170067-005
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 08/21/25 23:14
Prep Date: 08/20/25 07:36

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	25.4	µg/kg	5.79	50.831	ND	50.0	10-119			
2,4,5-TP (Silvex)	22.4	µg/kg	5.79	50.831	ND	44.0	10-101			
2,4-D	35.6	µg/kg	11.6	50.831	ND	70.0	10-128			
Surr: DCAA	31.5	µg/kg		50.831		62.0	10-116			

MSD	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2170067-006
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 08/21/25 22:48
Prep Date: 08/20/25 07:36

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	25.5	µg/kg	5.81	50.956	ND	50.0	10-119	0.245	30	
2,4,5-TP (Silvex)	24.4	µg/kg	5.81	50.956	ND	48.0	10-101	8.94	30	
2,4-D	28.5	µg/kg	11.6	50.956	ND	56.0	10-128	22.0	30	
Surr: DCAA	31.6	µg/kg		50.956		62.0	10-116	0.245	30	

The following samples were analyzed in this batch: HN2511149-001, HN2511149-002, HN2511149-003



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2166163

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3419281

Semivolatile Organic Compounds by GC-MS

MB	CLIENT ID: Method Blank	Lab ID: QC-2166163-001
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Method: EPA 8270E**Dilution:** 1**Analysis Date:** 08/20/25 18:56**Prep Date:** 08/18/25 11:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	ND	µg/kg	33.0							
1,2,4,5-Tetrachlorobenzene	ND	µg/kg	333							
1,4-Dioxane (1,4- Diethyleneoxide)	ND	µg/kg	167							
1-Methylnaphthalene	ND	µg/kg	6.67							
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	ND	µg/kg	33.0							
2,3,4,6-Tetrachlorophenol	ND	µg/kg	67.0							
2,4,5-Trichlorophenol	ND	µg/kg	33.0							
2,4,6-Trichlorophenol	ND	µg/kg	33.0							
2,4-Dichlorophenol	ND	µg/kg	33.0							
2,4-Dimethylphenol	ND	µg/kg	33.0							
2,4-Dinitrophenol	ND	µg/kg	333							
2,4-Dinitrotoluene (2,4-DNT)	ND	µg/kg	33.0							
2,6-Dinitrotoluene (2,6-DNT)	ND	µg/kg	33.0							
2-Chloronaphthalene	ND	µg/kg	6.67							
2-Chlorophenol	ND	µg/kg	33.0							
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	ND	µg/kg	33.0							
2-Methylnaphthalene	ND	µg/kg	6.67							
2-Methylphenol (o-Cresol)	ND	µg/kg	33.0							
2-Nitroaniline	ND	µg/kg	33.0							
2-Nitrophenol	ND	µg/kg	33.0							
3&4-Methylphenol	ND	µg/kg	33.0							
3,3'-Dichlorobenzidine	ND	µg/kg	167							
3-Nitroaniline	ND	µg/kg	33.0							
4-Bromophenyl phenyl ether (BDE-3)	ND	µg/kg	33.0							
4-Chloro-3-methylphenol	ND	µg/kg	33.0							
4-Chloroaniline	ND	µg/kg	67.0							
4-Chlorophenyl phenylether	ND	µg/kg	33.0							
4-Nitroaniline	ND	µg/kg	167							
4-Nitrophenol	ND	µg/kg	333							
Acenaphthene	ND	µg/kg	6.67							
Acenaphthylene	ND	µg/kg	6.67							
Acetophenone	ND	µg/kg	33.0							
Anthracene	ND	µg/kg	6.67							
Atrazine	ND	µg/kg	33.0							
Benzaldehyde	ND	µg/kg	67.0							
Benzo(a)anthracene	ND	µg/kg	6.67							
Benzo(a)pyrene	ND	µg/kg	6.67							
Benzo(b)fluoranthene	ND	µg/kg	6.67							
Benzo(g,h,i)perylene	ND	µg/kg	6.67							
Benzo(k)fluoranthene	ND	µg/kg	6.67							
bis(2-Chloroethoxy)methane	ND	µg/kg	33.0							
bis(2-Chloroethyl) ether	ND	µg/kg	33.0							

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2166163

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3419281

MB	CLIENT ID: Method Blank	Lab ID: QC-2166163-001
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Method: EPA 8270E

Dilution: 1

Analysis Date: 08/20/25 18:56

Prep Date: 08/18/25 11:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Butyl benzyl phthalate	ND	µg/kg	67.0							
Caprolactam	ND	µg/kg	33.0							
Carbazole	ND	µg/kg	33.0							
Chrysene	ND	µg/kg	6.67							
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	ND	µg/kg	33.0							
Dibenz(a,h) anthracene	ND	µg/kg	33.0							
Dibenzofuran	ND	µg/kg	33.0							
Diethyl phthalate	ND	µg/kg	33.0							
Dimethyl phthalate	ND	µg/kg	33.0							
Di-n-butyl phthalate	ND	µg/kg	33.0							
Di-n-octyl phthalate	ND	µg/kg	33.0							
Fluoranthene	ND	µg/kg	6.67							
Fluorene	ND	µg/kg	6.67							
Hexachlorobenzene	ND	µg/kg	33.0							
Hexachlorobutadiene	ND	µg/kg	33.0							
Hexachlorocyclopentadiene	ND	µg/kg	33.0							
Hexachloroethane	ND	µg/kg	33.0							
Indeno(1,2,3-cd) pyrene	ND	µg/kg	6.67							
Isophorone	ND	µg/kg	167							
Methylphenol, Total	ND	µg/kg	67.0							
Naphthalene	ND	µg/kg	6.67							
Nitrobenzene	ND	µg/kg	167							
n-Nitrosodi-n-propylamine	ND	µg/kg	33.0							
N-Nitrosodiphenylamine	ND	µg/kg	33.0							
Pentachlorophenol	ND	µg/kg	33.0							
Phenanthrene	ND	µg/kg	6.67							
Phenol	ND	µg/kg	33.0							
Pyrene	ND	µg/kg	6.67							
Pyridine	ND	µg/kg	167							
Surr: 2,4,6-Tribromophenol	2780	µg/kg		3333		83.4	48-94			
Surr: 2-Fluorobiphenyl	2550	µg/kg		3333		76.5	50-103			
Surr: 2-Fluorophenol	2720	µg/kg		3333		81.5	43-105			
Surr: 4-Terphenyl-d14	3010	µg/kg		3333		90.3	55-111			
Surr: Nitrobenzene-d5	2630	µg/kg		3333		78.8	47-100			
Surr: Phenol-d6	2840	µg/kg		3333		85.1	49-110			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2166163-002
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Method: EPA 8270E

Dilution: 1

Analysis Date: 08/20/25 19:18

Prep Date: 08/18/25 11:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	1130	µg/kg	33.0	1333		84.6	57-101			
1,2,4,5-Tetrachlorobenzene	1120	µg/kg	33.0	1333		83.8	54-98			
1-Methylnaphthalene	1140	µg/kg	6.67	1333		85.8	56-100			



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2166163

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3419281

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2166163-002
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Method: EPA 8270E

Dilution: 1

Analysis Date: 08/20/25 19:18

Prep Date: 08/18/25 11:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	1180	µg/kg	33.0	1333		88.6	50-101			
2,3,4,6-Tetrachlorophenol	1260	µg/kg	67.0	1333		94.3	48-103			
2,4,5-Trichlorophenol	1110	µg/kg	33.0	1333		83.5	54-98			
2,4,6-Trichlorophenol	1060	µg/kg	33.0	1333		79.7	56-97			
2,4-Dichlorophenol	1130	µg/kg	33.0	1333		84.6	54-99			
2,4-Dimethylphenol	1150	µg/kg	33.0	1333		86.6	47-102			
2,4-Dinitrophenol	875	µg/kg	333	1333		65.6	10-100			
2,4-Dinitrotoluene (2,4-DNT)	1320	µg/kg	33.0	1333		98.9	62-105			
2,6-Dinitrotoluene (2,6-DNT)	1280	µg/kg	33.0	1333		96.0	62-103			
2-Chloronaphthalene	1070	µg/kg	6.67	1333		80.6	57-101			
2-Chlorophenol	1090	µg/kg	33.0	1333		81.6	52-102			
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	1300	µg/kg	33.0	1333		97.5	42-104			
2-Methylnaphthalene	1120	µg/kg	6.67	1333		84.0	55-102			
2-Methylphenol (o-Cresol)	1100	µg/kg	33.0	1333		82.3	54-103			
2-Nitroaniline	1370	µg/kg	33.0	1333		103	57-103			
2-Nitrophenol	1320	µg/kg	33.0	1333		99.0	52-102			
3&4-Methylphenol	1150	µg/kg	33.0	1333		86.5	56-103			
3,3'-Dichlorobenzidine	917	µg/kg	167	1333		68.8	41-91			
3-Nitroaniline	977	µg/kg	33.0	1333		73.3	35-107			
4-Bromophenyl phenyl ether (BDE-3)	1190	µg/kg	33.0	1333		89.1	63-104			
4-Chloro-3-methylphenol	1200	µg/kg	33.0	1333		89.7	57-103			
4-Chloroaniline	1160	µg/kg	67.0	1333		87.4	32-99			
4-Chlorophenyl phenylether	1130	µg/kg	33.0	1333		85.1	62-100			
4-Nitroaniline	976	µg/kg	167	1333		73.2	19-124			
4-Nitrophenol	1220	µg/kg	333	1333		91.6	44-106			
Acenaphthene	1100	µg/kg	6.67	1333		82.7	60-101			
Acenaphthylene	1100	µg/kg	6.67	1333		82.4	59-101			
Acetophenone	1120	µg/kg	33.0	1333		83.9	54-102			
Anthracene	1190	µg/kg	6.67	1333		89.2	63-96			
Atrazine	1300	µg/kg	33.0	1333		97.9	60-110			
Benzaldehyde	571	µg/kg	67.0	1333		42.9	10-143			
Benzo(a)anthracene	1140	µg/kg	6.67	1333		85.9	66-102			
Benzo(a)pyrene	1140	µg/kg	6.67	1333		85.7	66-105			
Benzo(b)fluoranthene	1180	µg/kg	6.67	1333		88.6	67-105			
Benzo(g,h,i)perylene	1130	µg/kg	6.67	1333		84.6	59-110			
Benzo(k)fluoranthene	1190	µg/kg	6.67	1333		89.1	68-106			
bis(2-Chloroethoxy)methane	1170	µg/kg	33.0	1333		88.0	54-102			
bis(2-Chloroethyl) ether	1050	µg/kg	33.0	1333		79.0	51-101			
Butyl benzyl phthalate	1190	µg/kg	67.0	1333		89.0	59-107			
Caprolactam	1250	µg/kg	33.0	1333		93.9	49-103			
Carbazole	1140	µg/kg	33.0	1333		85.2	63-103			
Chrysene	1110	µg/kg	6.67	1333		83.3	66-105			
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	1210	µg/kg	33.0	1333		90.6	63-101			



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2166163

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3419281

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2166163-002
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Method: EPA 8270E

Dilution: 1

Analysis Date: 08/20/25 19:18

Prep Date: 08/18/25 11:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Dibenz(a,h) anthracene	1080	µg/kg	33.0	1333		80.7	61-109			
Dibenzofuran	1130	µg/kg	33.0	1333		84.5	61-101			
Diethyl phthalate	1190	µg/kg	33.0	1333		89.3	63-105			
Dimethyl phthalate	1150	µg/kg	33.0	1333		86.4	64-104			
Di-n-butyl phthalate	1200	µg/kg	33.0	1333		90.1	66-108			
Di-n-octyl phthalate	1180	µg/kg	33.0	1333		88.3	53-126			
Fluoranthene	1140	µg/kg	6.67	1333		85.7	66-105			
Fluorene	1140	µg/kg	6.67	1333		85.4	62-101			
Hexachlorobenzene	1210	µg/kg	33.0	1333		90.9	61-104			
Hexachlorobutadiene	1120	µg/kg	33.0	1333		84.1	52-99			
Hexachlorocyclopentadiene	1050	µg/kg	33.0	1333		78.8	39-106			
Hexachloroethane	1060	µg/kg	33.0	1333		79.4	59-99			
Indeno(1,2,3-cd) pyrene	1090	µg/kg	6.67	1333		81.6	57-114			
Isophorone	1190	µg/kg	167	1333		89.6	55-101			
Methylphenol, Total	2250	µg/kg	67.0	2667		84.4	54-103			
Naphthalene	1060	µg/kg	6.67	1333		79.2	54-99			
Nitrobenzene	1120	µg/kg	167	1333		84.4	53-100			
n-Nitrosodi-n-propylamine	1260	µg/kg	33.0	1333		94.8	52-104			
N-Nitrosodiphenylamine	1150	µg/kg	33.0	1333		86.3	61-104			
Pentachlorophenol	935	µg/kg	33.0	1333		70.2	35-100			
Phenanthrene	1150	µg/kg	6.67	1333		86.6	64-101			
Phenol	1120	µg/kg	33.0	1333		84.3	51-107			
Pyrene	1230	µg/kg	6.67	1333		92.4	62-114			
Pyridine	821	µg/kg	167	1333		61.6	40-84			
Surr: 2,4,6-Tribromophenol	ND	µg/kg		3333		0.00	48-94			S
Surr: 2-Fluorobiphenyl	ND	µg/kg		3333		0.00	50-103			S
Surr: 2-Fluorophenol	ND	µg/kg		3333		0.00	43-105			S
Surr: 4-Terphenyl-d14	ND	µg/kg		3333		0.00	55-111			S
Surr: Nitrobenzene-d5	ND	µg/kg		3333		0.00	47-100			S
Surr: Phenol-d6	ND	µg/kg		3333		0.00	49-110			S

MS	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2166163-005
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Method: EPA 8270E

Dilution: 10

Analysis Date: 08/20/25 19:40

Prep Date: 08/18/25 11:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	901	µg/kg	371	1315.3	ND	68.5	57-101			
1,2,4,5-Tetrachlorobenzene	ND	µg/kg	3740	1315.3	ND	69.0	54-98			
1-Methylnaphthalene	914	µg/kg	75.0	1315.3	82.1	64.0	56-100			
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	888	µg/kg	371	1315.3	ND	67.5	50-101			
2,3,4,6-Tetrachlorophenol	ND	µg/kg	750	1315.3	ND	24.5	48-103			S
2,4,5-Trichlorophenol	533	µg/kg	371	1315.3	ND	40.5	54-98			S
2,4,6-Trichlorophenol	441	µg/kg	371	1315.3	ND	33.5	56-97			S
2,4-Dichlorophenol	763	µg/kg	371	1315.3	ND	58.0	54-99			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2166163

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3419281

MS	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2166163-005
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Method: EPA 8270E

Dilution: 10

Analysis Date: 08/20/25 19:40

Prep Date: 08/18/25 11:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4-Dimethylphenol	1230	µg/kg	371	1315.3	ND	93.5	47-102			
2,4-Dinitrophenol	ND	µg/kg	3740	1315.3	ND	0.00	10-100			S
2,4-Dinitrotoluene (2,4-DNT)	901	µg/kg	371	1315.3	ND	68.5	62-105			
2,6-Dinitrotoluene (2,6-DNT)	947	µg/kg	371	1315.3	ND	72.0	62-103			
2-Chloronaphthalene	855	µg/kg	75.0	1315.3	ND	65.0	57-101			
2-Chlorophenol	756	µg/kg	371	1315.3	ND	57.5	52-102			
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	395	µg/kg	371	1315.3	ND	30.0	42-104			S
2-Methylnaphthalene	941	µg/kg	75.0	1315.3	134	62.5	55-102			
2-Methylphenol (o-Cresol)	895	µg/kg	371	1315.3	ND	68.0	54-103			
2-Nitroaniline	1100	µg/kg	371	1315.3	ND	84.0	57-103			
2-Nitrophenol	974	µg/kg	371	1315.3	ND	74.0	52-102			
3&4-Methylphenol	967	µg/kg	371	1315.3	<370	56.1	56-103			
3,3'-Dichlorobenzidine	ND	µg/kg	1870	1315.3	ND	53.0	41-91			
3-Nitroaniline	921	µg/kg	371	1315.3	ND	70.0	35-107			
4-Bromophenyl phenyl ether (BDE-3)	855	µg/kg	371	1315.3	ND	65.0	63-104			
4-Chloro-3-methylphenol	881	µg/kg	371	1315.3	ND	67.0	57-103			
4-Chloroaniline	ND	µg/kg	750	1315.3	ND	48.5	32-99			
4-Chlorophenyl phenylether	868	µg/kg	371	1315.3	ND	66.0	62-100			
4-Nitroaniline	ND	µg/kg	1870	1315.3	ND	55.0	19-124			
4-Nitrophenol	ND	µg/kg	3740	1315.3	ND	0.00	44-106			S
Acenaphthene	835	µg/kg	75.0	1315.3	ND	63.5	60-101			
Acenaphthylene	789	µg/kg	75.0	1315.3	ND	60.0	59-101			
Acetophenone	855	µg/kg	371	1315.3	ND	65.0	54-102			
Anthracene	901	µg/kg	75.0	1315.3	157	58.0	63-96			S
Atrazine	987	µg/kg	371	1315.3	ND	75.0	60-110			
Benzaldehyde	ND	µg/kg	750	1315.3	ND	32.0	10-143			
Benzo(a)anthracene	954	µg/kg	75.0	1315.3	291	53.1	66-102			S
Benzo(a)pyrene	888	µg/kg	75.0	1315.3	284	48.6	66-105			S
Benzo(b)fluoranthene	974	µg/kg	75.0	1315.3	388	48.1	67-105			S
Benzo(g,h,i)perylene	901	µg/kg	75.0	1315.3	209	54.6	59-110			S
Benzo(k)fluoranthene	967	µg/kg	75.0	1315.3	179	61.6	68-106			S
bis(2-Chloroethoxy)methane	888	µg/kg	371	1315.3	ND	67.5	54-102			
bis(2-Chloroethyl) ether	868	µg/kg	371	1315.3	ND	66.0	51-101			
Butyl benzyl phthalate	967	µg/kg	750	1315.3	ND	73.5	59-107			
Caprolactam	1020	µg/kg	371	1315.3	ND	77.5	49-103			
Carbazole	809	µg/kg	371	1315.3	ND	61.5	63-103			S
Chrysene	908	µg/kg	75.0	1315.3	269	51.1	66-105			S
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	875	µg/kg	371	1315.3	ND	66.5	63-101			
Dibenz(a,h) anthracene	730	µg/kg	371	1315.3	ND	55.5	61-109			S
Dibenzofuran	881	µg/kg	371	1315.3	ND	67.0	61-101			
Diethyl phthalate	941	µg/kg	371	1315.3	ND	71.5	63-105			
Dimethyl phthalate	901	µg/kg	371	1315.3	ND	68.5	64-104			
Di-n-butyl phthalate	914	µg/kg	371	1315.3	ND	69.5	66-108			
Di-n-octyl phthalate	829	µg/kg	371	1315.3	ND	63.0	53-126			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2166163

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3419281

MS	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2166163-005
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Method: EPA 8270E**Dilution:** 10**Analysis Date:** 08/20/25 19:40**Prep Date:** 08/18/25 11:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Fluoranthene	1180	µg/kg	75.0	1315.3	605	49.2	66-105			S
Fluorene	914	µg/kg	75.0	1315.3	ND	69.5	62-101			
Hexachlorobenzene	862	µg/kg	371	1315.3	ND	65.5	61-104			
Hexachlorobutadiene	816	µg/kg	371	1315.3	ND	62.0	52-99			
Hexachlorocyclopentadiene	ND	µg/kg	371	1315.3	ND	24.0	39-106			S
Hexachloroethane	921	µg/kg	371	1315.3	ND	70.0	59-99			
Indeno(1,2,3-cd) pyrene	816	µg/kg	75.0	1315.3	209	48.1	57-114			S
Isophorone	ND	µg/kg	1870	1315.3	ND	65.5	55-101			
Methylphenol, Total	1860	µg/kg	371	2631.5	ND	70.7	54-103			
Naphthalene	842	µg/kg	75.0	1315.3	ND	64.0	54-99			
Nitrobenzene	ND	µg/kg	1870	1315.3	ND	68.0	53-100			
n-Nitrosodi-n-propylamine	947	µg/kg	371	1315.3	ND	72.0	52-104			
N-Nitrosodiphenylamine	941	µg/kg	371	1315.3	ND	71.5	61-104			
Pentachlorophenol	ND	µg/kg	371	1315.3	ND	0.00	35-100			S
Phenanthrene	1000	µg/kg	75.0	1315.3	396	49.6	64-101			S
Phenol	987	µg/kg	371	1315.3	ND	75.0	51-107			
Pyrene	1270	µg/kg	75.0	1315.3	650	53.2	52-114			
Pyridine	ND	µg/kg	1870	1315.3	ND	51.5	40-84			
Surr: 2,4,6-Tribromophenol	ND	µg/kg		3288.7		0.00	48-94			S
Surr: 2-Fluorobiphenyl	ND	µg/kg		3288.7		0.00	50-103			S
Surr: 2-Fluorophenol	ND	µg/kg		3288.7		0.00	43-105			S
Surr: 4-Terphenyl-d14	ND	µg/kg		3288.7		0.00	55-111			S
Surr: Nitrobenzene-d5	ND	µg/kg		3288.7		0.00	47-100			S
Surr: Phenol-d6	ND	µg/kg		3288.7		0.00	49-110			S

MSD	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2166163-006
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Method: EPA 8270E**Dilution:** 10**Analysis Date:** 08/20/25 20:03**Prep Date:** 08/18/25 11:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	860	µg/kg	370	1312.4	ND	65.5	57-101	4.70	30	
1,2,4,5-Tetrachlorobenzene	ND	µg/kg	3740	1312.4	ND	59.0	54-98	0.221	30	
1-Methylnaphthalene	965	µg/kg	74.8	1312.4	82.1	68.0	56-100	5.37	30	
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	827	µg/kg	370	1312.4	ND	63.0	50-101	7.12	30	
2,3,4,6-Tetrachlorophenol	ND	µg/kg	748	1312.4	ND	23.5	48-103	0		S
2,4,5-Trichlorophenol	518	µg/kg	370	1312.4	ND	39.5	54-98	2.72	30	S
2,4,6-Trichlorophenol	433	µg/kg	370	1312.4	ND	33.0	56-97	1.72	30	S
2,4-Dichlorophenol	689	µg/kg	370	1312.4	ND	52.5	54-99	10.2	30	S
2,4-Dimethylphenol	1150	µg/kg	370	1312.4	ND	87.5	47-102	6.85	30	
2,4-Dinitrophenol	ND	µg/kg	3740	1312.4	ND	0.00	10-100	0.221	30	S
2,4-Dinitrotoluene (2,4-DNT)	899	µg/kg	370	1312.4	ND	68.5	62-105	0.221	30	
2,6-Dinitrotoluene (2,6-DNT)	984	µg/kg	370	1312.4	ND	75.0	62-103	3.86	30	
2-Chloronaphthalene	794	µg/kg	74.8	1312.4	ND	60.5	57-101	7.39	30	
2-Chlorophenol	689	µg/kg	370	1312.4	ND	52.5	52-102	9.31	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2166163

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3419281

MSD	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2166163-006
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Method: EPA 8270E

Dilution: 10

Analysis Date: 08/20/25 20:03

Prep Date: 08/18/25 11:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	ND	µg/kg	370	1312.4	ND	0.00	42-104	6.40	30	S
2-Methylnaphthalene	932	µg/kg	74.8	1312.4	134	62.0	55-102	0.922	30	
2-Methylphenol (o-Cresol)	873	µg/kg	370	1312.4	ND	66.5	54-103	2.45	30	
2-Nitroaniline	938	µg/kg	370	1312.4	ND	71.5	57-103	16.3	30	
2-Nitrophenol	899	µg/kg	370	1312.4	ND	68.5	52-102	7.94	30	
3&4-Methylphenol	886	µg/kg	370	1312.4	<370	50.0	56-103	8.73	30	S
3,3'-Dichlorobenzidine	ND	µg/kg	1870	1312.4	ND	55.0	41-91	0.221	30	
3-Nitroaniline	873	µg/kg	370	1312.4	ND	66.5	35-107	5.35	30	
4-Bromophenyl phenyl ether (BDE-3)	827	µg/kg	370	1312.4	ND	63.0	63-104	3.34	30	
4-Chloro-3-methylphenol	820	µg/kg	370	1312.4	ND	62.5	57-103	7.17	30	
4-Chloroaniline	ND	µg/kg	748	1312.4	ND	49.5	32-99	0		
4-Chlorophenyl phenylether	748	µg/kg	370	1312.4	ND	57.0	62-100	14.8	30	S
4-Nitroaniline	ND	µg/kg	1870	1312.4	ND	63.5	19-124	0.221	30	
4-Nitrophenol	ND	µg/kg	3740	1312.4	ND	0.00	44-106	0.221	30	S
Acenaphthene	873	µg/kg	74.8	1312.4	ND	66.5	60-101	4.39	30	
Acenaphthylene	788	µg/kg	74.8	1312.4	ND	60.0	59-101	0.221	30	
Acetophenone	827	µg/kg	370	1312.4	ND	63.0	54-102	3.34	30	
Anthracene	938	µg/kg	74.8	1312.4	157	61.0	63-96	4.06	30	S
Atrazine	1030	µg/kg	370	1312.4	ND	78.5	60-110	4.34	30	
Benzaldehyde	ND	µg/kg	748	1312.4	ND	30.0	10-143	0		
Benzo(a)anthracene	1110	µg/kg	74.8	1312.4	291	65.0	66-102	15.1	30	S
Benzo(a)pyrene	1120	µg/kg	74.8	1312.4	284	66.0	66-105	22.7	30	
Benzo(b)fluoranthene	1190	µg/kg	74.8	1312.4	388	65.0	67-105	20.4	30	S
Benzo(g,h,i)perylene	1080	µg/kg	74.8	1312.4	209	68.5	59-110	18.3	30	
Benzo(k)fluoranthene	1040	µg/kg	74.8	1312.4	179	67.5	68-106	7.62	30	S
bis(2-Chloroethoxy)methane	827	µg/kg	370	1312.4	ND	63.0	54-102	7.12	30	
bis(2-Chloroethyl) ether	938	µg/kg	370	1312.4	ND	71.5	51-101	7.78	30	
Butyl benzyl phthalate	978	µg/kg	748	1312.4	ND	74.5	59-107	1.13	30	
Caprolactam	1120	µg/kg	370	1312.4	ND	85.0	49-103	9.01	30	
Carbazole	788	µg/kg	370	1312.4	ND	60.0	63-103	2.69	30	S
Chrysene	1100	µg/kg	74.8	1312.4	269	66.0	66-105	19.4	30	
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	971	µg/kg	370	1312.4	ND	74.0	63-101	10.4	30	
Dibenz(a,h) anthracene	781	µg/kg	370	1312.4	ND	59.5	61-109	6.74	30	S
Dibenzofuran	853	µg/kg	370	1312.4	ND	65.0	61-101	3.25	30	
Diethyl phthalate	912	µg/kg	370	1312.4	ND	69.5	63-105	3.06	30	
Dimethyl phthalate	820	µg/kg	370	1312.4	ND	62.5	64-104	9.38	30	S
Di-n-butyl phthalate	893	µg/kg	370	1312.4	ND	68.0	66-108	2.40	30	
Di-n-octyl phthalate	978	µg/kg	370	1312.4	ND	74.5	53-126	16.5	30	
Fluoranthene	1580	µg/kg	74.8	1312.4	605	80.1	66-105	29.3	30	
Fluorene	866	µg/kg	74.8	1312.4	ND	66.0	62-101	5.39	30	
Hexachlorobenzene	820	µg/kg	370	1312.4	ND	62.5	61-104	4.91	30	
Hexachlorobutadiene	728	µg/kg	370	1312.4	ND	55.5	52-99	11.3	30	
Hexachlorocyclopentadiene	ND	µg/kg	370	1312.4	ND	16.0	39-106	0.221	30	S
Hexachloroethane	932	µg/kg	370	1312.4	ND	71.0	59-99	1.20	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2166163

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3419281

MSD	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2166163-006
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Method: EPA 8270E

Dilution: 10

Analysis Date: 08/20/25 20:03

Prep Date: 08/18/25 11:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Indeno(1,2,3-cd) pyrene	991	µg/kg	74.8	1312.4	209	61.5	57-114	19.4	30	
Isophorone	ND	µg/kg	1870	1312.4	ND	61.5	55-101	0.221	30	
Methylphenol, Total	1760	µg/kg	370	2625.7	ND	67.0	54-103	5.66	30	
Naphthalene	847	µg/kg	74.8	1312.4	ND	64.5	54-99	0.557	30	
Nitrobenzene	ND	µg/kg	1870	1312.4	ND	67.5	53-100	0.221	30	
n-Nitrosodi-n-propylamine	906	µg/kg	370	1312.4	ND	69.0	52-104	4.48	30	
N-Nitrosodiphenylamine	1030	µg/kg	370	1312.4	ND	78.5	61-104	9.11	30	
Pentachlorophenol	ND	µg/kg	370	1312.4	ND	0.00	35-100	0.221	30	S
Phenanthrene	1160	µg/kg	74.8	1312.4	396	62.0	64-101	15.0	30	S
Phenol	991	µg/kg	370	1312.4	ND	75.5	51-107	0.444	30	
Pyrene	1670	µg/kg	74.8	1312.4	650	83.6	52-114	27.1	30	
Pyridine	ND	µg/kg	1870	1312.4	ND	56.0	40-84	0.221	30	
Surr: 2,4,6-Tribromophenol	ND	µg/kg		3281.4		0.00	48-94	0.221	30	S
Surr: 2-Fluorobiphenyl	ND	µg/kg		3281.4		0.00	50-103	0.221	30	S
Surr: 2-Fluorophenol	ND	µg/kg		3281.4		0.00	43-105	0.221	30	S
Surr: 4-Terphenyl-d14	ND	µg/kg		3281.4		0.00	55-111	0.221	30	S
Surr: Nitrobenzene-d5	ND	µg/kg		3281.4		0.00	47-100	0.221	30	S
Surr: Phenol-d6	ND	µg/kg		3281.4		0.00	49-110	0.221	30	S

The following samples were analyzed in this batch: HN2511149-001, HN2511149-002, HN2511149-003



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2153840

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3398752

Volatile Organic Compounds by GC-MS

MB	CLIENT ID: Method Blank	Lab ID: QC-2153840-001
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/13/25 12:44

Prep Date: 08/11/25 17:01

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	µg/kg	30.0							
1,1,2,2-Tetrachloroethane	ND	µg/kg	30.0							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	µg/kg	30.0							
1,1,2-Trichloroethane	ND	µg/kg	30.0							
1,1-Dichloroethane	ND	µg/kg	30.0							
1,1-Dichloroethylene	ND	µg/kg	30.0							
1,2,3-Trichlorobenzene	ND	µg/kg	100							
1,2,3-Trichloropropane	ND	µg/kg	30.0							
1,2,4-Trichlorobenzene	ND	µg/kg	100							
1,2,4-Trimethylbenzene	ND	µg/kg	30.0							
1,2-Dibromo-3-chloropropane (DBCP)	ND	µg/kg	100							
1,2-Dibromoethane (EDB, Ethylene dibromide)	ND	µg/kg	30.0							
1,2-Dichlorobenzene (o-Dichlorobenzene)	ND	µg/kg	30.0							
1,2-Dichloroethane (Ethylene dichloride)	ND	µg/kg	100							
1,2-Dichloropropane	ND	µg/kg	30.0							
1,3,5-Trimethylbenzene	ND	µg/kg	100							
1,3-Dichlorobenzene (m-Dichlorobenzene)	ND	µg/kg	30.0							
1,3-Dichloropropene	ND	µg/kg	60.0							
1,4-Dichlorobenzene (p-Dichlorobenzene)	ND	µg/kg	30.0							
2-Butanone (Methyl ethyl ketone, MEK)	ND	µg/kg	200							
2-Hexanone	ND	µg/kg	30.0							
4-Methyl-2-pentanone (MIBK)	ND	µg/kg	30.0							
Acetone	ND	µg/kg	100							
Benzene	ND	µg/kg	30.0							
Bromochloromethane	ND	µg/kg	30.0							
Bromodichloromethane	ND	µg/kg	30.0							
Bromoform	ND	µg/kg	30.0							
Carbon disulfide	ND	µg/kg	30.0							
Carbon tetrachloride	ND	µg/kg	30.0							
Chlorobenzene	ND	µg/kg	30.0							
Chlorodibromomethane	ND	µg/kg	30.0							
Chloroethane (Ethyl chloride)	ND	µg/kg	100							
Chloroform	ND	µg/kg	30.0							
cis & trans-1,2-Dichloroethene	ND	µg/kg	60.0							
cis-1,2-Dichloroethylene	ND	µg/kg	30.0							
cis-1,3-Dichloropropene	ND	µg/kg	30.0							
Cyclohexane	ND	µg/kg	100							
Dichlorodifluoromethane (Freon-12)	ND	µg/kg	100							



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2153840

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3398752

MB	CLIENT ID: Method Blank	Lab ID: QC-2153840-001
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/13/25 12:44

Prep Date: 08/11/25 17:01

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Ethylbenzene	ND	µg/kg	30.0							
Isopropylbenzene	ND	µg/kg	30.0							
m+p-Xylene	ND	µg/kg	60.0							
Methyl acetate	ND	µg/kg	250							
Methyl bromide (Bromomethane)	ND	µg/kg	100							
Methyl chloride (Chloromethane)	ND	µg/kg	100							
Methyl tert-butyl ether (MTBE)	ND	µg/kg	30.0							
Methylcyclohexane	ND	µg/kg	30.0							
Methylene chloride (Dichloromethane)	ND	µg/kg	250							
o-Xylene	ND	µg/kg	30.0							
Styrene	ND	µg/kg	30.0							
Tetrachloroethylene (Perchloroethylene)	ND	µg/kg	30.0							
Toluene	ND	µg/kg	30.0							
Total Xylene	ND	µg/kg	90.0							
trans-1,2-Dichloroethylene	ND	µg/kg	30.0							
trans-1,3-Dichloropropylene	ND	µg/kg	30.0							
Trichloroethene (Trichloroethylene)	ND	µg/kg	30.0							
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	ND	µg/kg	30.0							
Vinyl chloride (Chloroethene)	ND	µg/kg	30.0							
Surr: 1,2-Dichloroethane-d4	971	µg/kg		1000		97.1	80-120			
Surr: 4-Bromofluorobenzene	907	µg/kg		1000		90.7	80-120			
Surr: Dibromofluoromethane	896	µg/kg		1000		89.6	80-120			
Surr: Toluene-d8	1030	µg/kg		1000		103	80-120			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2153840-002
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/13/25 11:55

Prep Date: 08/11/25 17:01

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	809	µg/kg	30.0	1000		80.9	75-121			
1,1,2,2-Tetrachloroethane	904	µg/kg	30.0	1000		90.4	79-125			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	846	µg/kg	30.0	1000		84.6	62-129			
1,1,2-Trichloroethane	926	µg/kg	30.0	1000		92.6	80-123			
1,1-Dichloroethane	874	µg/kg	30.0	1000		87.4	74-124			
1,1-Dichloroethylene	870	µg/kg	30.0	1000		87.0	68-131			
1,2,3-Trichlorobenzene	852	µg/kg	100	1000		85.2	60-135			
1,2,3-Trichloropropane	822	µg/kg	30.0	1000		82.2	77-121			
1,2,4-Trichlorobenzene	818	µg/kg	100	1000		81.8	63-130			
1,2,4-Trimethylbenzene	922	µg/kg	30.0	1000		92.2	64-126			
1,2-Dibromo-3-chloropropane (DBCP)	790	µg/kg	100	1000		79.0	55-135			
1,2-Dibromoethane (EDB, Ethylene dibromide)	870	µg/kg	30.0	1000		87.0	63-155			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2153840

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3398752

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2153840-002
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/13/25 11:55

Prep Date: 08/11/25 17:01

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,2-Dichlorobenzene (o-Dichlorobenzene)	860	µg/kg	30.0	1000		86.0	77-122			
1,2-Dichloroethane (Ethylene dichloride)	881	µg/kg	100	1000		88.1	70-130			
1,2-Dichloropropane	892	µg/kg	30.0	1000		89.2	71-130			
1,3,5-Trimethylbenzene	904	µg/kg	100	1000		90.4	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	886	µg/kg	30.0	1000		88.6	78-121			
1,3-Dichloropropene	1860	µg/kg	60.0	2000		93.0	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	892	µg/kg	30.0	1000		89.2	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	884	µg/kg	200	1000		88.4	47-164			
2-Hexanone	1040	µg/kg	30.0	1000		104	70-137			
4-Methyl-2-pentanone (MIBK)	1450	µg/kg	30.0	1000		145	57-200			
Acetone	1020	µg/kg	100	1000		102	52-190			
Benzene	944	µg/kg	30.0	1000		94.4	78-122			
Bromochloromethane	858	µg/kg	30.0	1000		85.8	68-130			
Bromodichloromethane	942	µg/kg	30.0	1000		94.2	75-125			
Bromoform	1020	µg/kg	30.0	1000		102	59-120			
Carbon disulfide	971	µg/kg	30.0	1000		97.1	60-163			
Carbon tetrachloride	828	µg/kg	30.0	1000		82.8	69-123			
Chlorobenzene	898	µg/kg	30.0	1000		89.8	79-120			
Chlorodibromomethane	871	µg/kg	30.0	1000		87.1	57-123			
Chloroethane (Ethyl chloride)	863	µg/kg	100	1000		86.3	38-132			
Chloroform	840	µg/kg	30.0	1000		84.0	72-122			
cis & trans-1,2-Dichloroethene	1690	µg/kg	60.0	2000		84.4	72-127			
cis-1,2-Dichloroethylene	847	µg/kg	30.0	1000		84.7	74-125			
cis-1,3-Dichloropropene	992	µg/kg	30.0	1000		99.2	62-124			
Dichlorodifluoromethane (Freon-12)	865	µg/kg	100	1000		86.5	28-137			
Ethylbenzene	898	µg/kg	30.0	1000		89.8	75-121			
Isopropylbenzene	888	µg/kg	30.0	1000		88.8	74-121			
m+p-Xylene	1790	µg/kg	60.0	2000		89.4	67-129			
Methyl acetate	699	µg/kg	250	1000		69.9	61-125			
Methyl bromide (Bromomethane)	864	µg/kg	100	1000		86.4	31-169			
Methyl chloride (Chloromethane)	922	µg/kg	100	1000		92.2	24-119			
Methyl tert-butyl ether (MTBE)	912	µg/kg	30.0	1000		91.2	79-139			
Methylene chloride (Dichloromethane)	834	µg/kg	250	1000		83.4	62-135			
o-Xylene	905	µg/kg	30.0	1000		90.5	75-120			
Styrene	954	µg/kg	30.0	1000		95.4	74-126			
Tetrachloroethylene (Perchloroethylene)	906	µg/kg	30.0	1000		90.6	76-128			
Toluene	895	µg/kg	30.0	1000		89.5	76-120			
Total Xylene	2690	µg/kg	90.0	3000		89.8	67-129			
trans-1,2-Dichloroethylene	840	µg/kg	30.0	1000		84.0	72-127			
trans-1,3-Dichloropropylene	869	µg/kg	30.0	1000		86.9	66-120			
Trichloroethene (Trichloroethylene)	874	µg/kg	30.0	1000		87.4	75-122			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2153840

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3398752

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2153840-002
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Method: EPA 8260D**Dilution:** 1**Analysis Date:** 08/13/25 11:55**Prep Date:** 08/11/25 17:01

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	682	µg/kg	30.0	1000		68.2	51-115			
Vinyl chloride (Chloroethene)	876	µg/kg	30.0	1000		87.6	43-128			
Surr: 1,2-Dichloroethane-d4	1020	µg/kg		1000		102	80-120			
Surr: 4-Bromofluorobenzene	966	µg/kg		1000		96.6	80-120			
Surr: Dibromofluoromethane	1080	µg/kg		1000		108	80-120			
Surr: Toluene-d8	984	µg/kg		1000		98.4	80-120			

MS	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2153840-005
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Method: EPA 8260D**Dilution:** 1**Analysis Date:** 08/13/25 19:37**Prep Date:** 08/11/25 17:01

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	833	µg/kg	36.8	954.2	ND	87.3	75-121			
1,1,2,2-Tetrachloroethane	574	µg/kg	36.8	954.2	ND	60.2	79-125			S
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	864	µg/kg	36.8	954.2	ND	90.6	62-129			
1,1,2-Trichloroethane	852	µg/kg	36.8	954.2	ND	89.4	80-123			
1,1-Dichloroethane	899	µg/kg	36.8	954.2	ND	94.2	74-124			
1,1-Dichloroethylene	936	µg/kg	36.8	954.2	ND	98.1	68-131			
1,2,3-Trichlorobenzene	1140	µg/kg	123	954.2	ND	120	60-135			
1,2,3-Trichloropropane	881	µg/kg	36.8	954.2	ND	92.4	77-121			
1,2,4-Trichlorobenzene	987	µg/kg	123	954.2	ND	103	63-130			
1,2,4-Trimethylbenzene	1050	µg/kg	36.8	954.2	120	101	64-126			
1,2-Dibromo-3-chloropropane (DBCP)	825	µg/kg	123	954.2	ND	86.5	55-135			
1,2-Dibromoethane (EDB, Ethylene dibromide)	856	µg/kg	36.8	954.2	ND	89.7	63-155			
1,2-Dichlorobenzene (o-Dichlorobenzene)	868	µg/kg	36.8	954.2	ND	91.0	77-122			
1,2-Dichloroethane (Ethylene dichloride)	882	µg/kg	123	954.2	ND	92.4	70-130			
1,2-Dichloropropane	884	µg/kg	36.8	954.2	ND	92.6	71-130			
1,3,5-Trimethylbenzene	992	µg/kg	123	954.2	<123	101	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	834	µg/kg	36.8	954.2	ND	87.4	78-121			
1,3-Dichloropropene	1650	µg/kg	73.6	1908.4	ND	86.6	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	877	µg/kg	36.8	954.2	ND	92.0	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	1280	µg/kg	245	954.2	ND	134	47-164			
2-Hexanone	1250	µg/kg	36.8	954.2	ND	131	70-137			
4-Methyl-2-pentanone (MIBK)	1210	µg/kg	36.8	954.2	ND	127	57-200			
Acetone	1610	µg/kg	123	954.2	184	154	52-190			
Benzene	967	µg/kg	36.8	954.2	ND	101	78-122			
Bromochloromethane	888	µg/kg	36.8	954.2	ND	93.0	68-130			
Bromodichloromethane	875	µg/kg	36.8	954.2	ND	91.7	75-125			
Bromoform	723	µg/kg	36.8	954.2	ND	75.8	59-120			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2153840

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3398752

MS	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2153840-005
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Method: EPA 8260D**Dilution:** 1**Analysis Date:** 08/13/25 19:37**Prep Date:** 08/11/25 17:01

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Carbon disulfide	922	µg/kg	36.8	954.2	ND	96.6	60-163			
Carbon tetrachloride	1110	µg/kg	36.8	954.2	ND	117	69-123			
Chlorobenzene	935	µg/kg	36.8	954.2	ND	98.0	79-120			
Chlorodibromomethane	738	µg/kg	36.8	954.2	ND	77.4	57-123			
Chloroethane (Ethyl chloride)	978	µg/kg	123	954.2	ND	102	38-132			
Chloroform	859	µg/kg	36.8	954.2	ND	90.0	72-122			
cis & trans-1,2-Dichloroethene	1730	µg/kg	73.6	1908.4	ND	90.8	72-127			
cis-1,2-Dichloroethylene	899	µg/kg	36.8	954.2	ND	94.2	74-125			
cis-1,3-Dichloropropene	917	µg/kg	36.8	954.2	ND	96.1	62-124			
Dichlorodifluoromethane (Freon-12)	599	µg/kg	123	954.2	ND	62.8	28-137			
Ethylbenzene	991	µg/kg	36.8	954.2	ND	104	75-121			
Isopropylbenzene	1000	µg/kg	36.8	954.2	ND	105	74-121			
m+p-Xylene	2000	µg/kg	73.6	1908.4	ND	104	67-129			
Methyl acetate	1060	µg/kg	307	954.2	<307	98.6	61-125			
Methyl bromide (Bromomethane)	920	µg/kg	123	954.2	ND	96.4	31-169			
Methyl chloride (Chloromethane)	881	µg/kg	123	954.2	ND	92.4	24-119			
Methyl tert-butyl ether (MTBE)	952	µg/kg	36.8	954.2	ND	99.8	79-139			
Methylene chloride (Dichloromethane)	899	µg/kg	307	954.2	ND	94.2	62-135			
o-Xylene	992	µg/kg	36.8	954.2	<36.8	102	75-120			
Styrene	900	µg/kg	36.8	954.2	ND	94.3	74-126			
Tetrachloroethylene (Perchloroethylene)	1800	µg/kg	36.8	954.2	ND	189	76-128			S
Toluene	963	µg/kg	36.8	954.2	ND	101	76-120			
Total Xylene	2990	µg/kg	110	2862.6	ND	104	67-129			
trans-1,2-Dichloroethylene	834	µg/kg	36.8	954.2	ND	87.4	72-127			
trans-1,3-Dichloropropylene	736	µg/kg	36.8	954.2	ND	77.2	66-120			
Trichloroethene (Trichloroethylene)	1180	µg/kg	36.8	954.2	ND	124	75-122			S
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	931	µg/kg	36.8	954.2	ND	97.6	51-115			
Vinyl chloride (Chloroethene)	986	µg/kg	36.8	954.2	ND	103	43-128			
Surr: 1,2-Dichloroethane-d4	886	µg/kg		954.2		92.9	80-120			
Surr: 4-Bromofluorobenzene	960	µg/kg		954.2		101	80-120			
Surr: Dibromofluoromethane	982	µg/kg		954.2		103	80-120			
Surr: Toluene-d8	978	µg/kg		954.2		102	80-120			

MSD	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2153840-006
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Method: EPA 8260D**Dilution:** 1**Analysis Date:** 08/13/25 19:53**Prep Date:** 08/11/25 17:01

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	785	µg/kg	36.8	954.2	ND	82.3	75-121	5.90	30	
1,1,2,2-Tetrachloroethane	602	µg/kg	36.8	954.2	ND	63.1	79-125	4.79	30	S
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	881	µg/kg	36.8	954.2	ND	92.4	62-129	1.91	30	
1,1,2-Trichloroethane	880	µg/kg	36.8	954.2	ND	92.2	80-123	3.14	30	
1,1-Dichloroethane	931	µg/kg	36.8	954.2	ND	97.6	74-124	3.44	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2153840

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3398752

MSD	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2153840-006
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/13/25 19:53

Prep Date: 08/11/25 17:01

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1-Dichloroethylene	912	µg/kg	36.8	954.2	ND	95.6	68-131	2.63	30	
1,2,3-Trichlorobenzene	1090	µg/kg	123	954.2	ND	114	60-135	4.87	30	
1,2,3-Trichloropropane	877	µg/kg	36.8	954.2	ND	92.0	77-121	0.434	30	
1,2,4-Trichlorobenzene	964	µg/kg	123	954.2	ND	101	63-130	2.40	30	
1,2,4-Trimethylbenzene	1000	µg/kg	36.8	954.2	120	95.6	64-126	4.86	30	
1,2-Dibromo-3-chloropropane (DBCP)	867	µg/kg	123	954.2	ND	90.9	55-135	4.96	30	
1,2-Dibromoethane (EDB, Ethylene dibromide)	849	µg/kg	36.8	954.2	ND	89.0	63-155	0.783	30	
1,2-Dichlorobenzene (o-Dichlorobenzene)	908	µg/kg	36.8	954.2	ND	95.2	77-122	4.46	30	
1,2-Dichloroethane (Ethylene dichloride)	907	µg/kg	123	954.2	ND	95.1	70-130	2.82	30	
1,2-Dichloropropane	878	µg/kg	36.8	954.2	ND	92.0	71-130	0.650	30	
1,3,5-Trimethylbenzene	999	µg/kg	123	954.2	<123	101	66-130	0.671	30	
1,3-Dichlorobenzene (m-Dichlorobenzene)	862	µg/kg	36.8	954.2	ND	90.4	78-121	3.32	30	
1,3-Dichloropropene	1660	µg/kg	73.6	1908.4	ND	87.0	62-124	0.403	30	
1,4-Dichlorobenzene (p-Dichlorobenzene)	842	µg/kg	36.8	954.2	ND	88.2	78-122	4.11	30	
2-Butanone (Methyl ethyl ketone, MEK)	1030	µg/kg	245	954.2	ND	108	47-164	21.3	30	
2-Hexanone	1180	µg/kg	36.8	954.2	ND	124	70-137	5.14	30	
4-Methyl-2-pentanone (MIBK)	1230	µg/kg	36.8	954.2	ND	128	57-200	1.45	30	
Acetone	1540	µg/kg	123	954.2	184	147	52-190	4.47	30	
Benzene	967	µg/kg	36.8	954.2	ND	101	78-122	0.00	30	
Bromochloromethane	870	µg/kg	36.8	954.2	ND	91.2	68-130	2.06	30	
Bromodichloromethane	868	µg/kg	36.8	954.2	ND	91.0	75-125	0.766	30	
Bromoform	758	µg/kg	36.8	954.2	ND	79.4	59-120	4.64	30	
Carbon disulfide	855	µg/kg	36.8	954.2	ND	89.6	60-163	7.57	30	
Carbon tetrachloride	1040	µg/kg	36.8	954.2	ND	109	69-123	6.50	30	
Chlorobenzene	894	µg/kg	36.8	954.2	ND	93.6	79-120	4.54	30	
Chlorodibromomethane	747	µg/kg	36.8	954.2	ND	78.2	57-123	1.09	30	
Chloroethane (Ethyl chloride)	906	µg/kg	123	954.2	ND	95.0	38-132	7.59	30	
Chloroform	917	µg/kg	36.8	954.2	ND	96.1	72-122	6.56	30	
cis & trans-1,2-Dichloroethene	1790	µg/kg	73.6	1908.4	ND	93.9	72-127	3.33	30	
cis-1,2-Dichloroethylene	942	µg/kg	36.8	954.2	ND	98.8	74-125	4.72	30	
cis-1,3-Dichloropropene	941	µg/kg	36.8	954.2	ND	98.6	62-124	2.57	30	
Dichlorodifluoromethane (Freon-12)	589	µg/kg	123	954.2	ND	61.8	28-137	1.69	30	
Ethylbenzene	975	µg/kg	36.8	954.2	ND	102	75-121	1.60	30	
Isopropylbenzene	945	µg/kg	36.8	954.2	ND	99.0	74-121	5.88	30	
m+p-Xylene	1970	µg/kg	73.6	1908.4	ND	103	67-129	1.20	30	
Methyl acetate	911	µg/kg	307	954.2	<307	82.7	61-125	15.3	30	
Methyl bromide (Bromomethane)	808	µg/kg	123	954.2	ND	84.6	31-169	13.0	30	
Methyl chloride (Chloromethane)	938	µg/kg	123	954.2	ND	98.3	24-119	6.24	30	
Methyl tert-butyl ether (MTBE)	958	µg/kg	36.8	954.2	ND	100	79-139	0.600	30	
Methylene chloride (Dichloromethane)	926	µg/kg	307	954.2	ND	97.1	62-135	2.98	30	
o-Xylene	921	µg/kg	36.8	954.2	<36.8	94.4	75-120	7.43	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 3751 Northwestern
Matrix: SOIL/SOLID
QC Lot: 2153840

Work Order: HN2511149
Date Collected: NA
Date Received: NA
Run ID: 3398752

MSD	CLIENT ID: 3751 SB01 (5-6)	Lab ID: QC-2153840-006
------------	-----------------------------------	-------------------------------

Method: EPA 8260D

Dilution: 1

Analysis Date: 08/13/25 19:53

Prep Date: 08/11/25 17:01

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Styrene	879	µg/kg	36.8	954.2	ND	92.1	74-126	2.36	30	
Tetrachloroethylene (Perchloroethylene)	1680	µg/kg	36.8	954.2	ND	176	76-128	7.09	30	S
Toluene	942	µg/kg	36.8	954.2	ND	98.8	76-120	2.20	30	
Total Xylene	2890	µg/kg	110	2862.6	ND	101	67-129	3.23	30	
trans-1,2-Dichloroethylene	849	µg/kg	36.8	954.2	ND	89.0	72-127	1.81	30	
trans-1,3-Dichloropropylene	719	µg/kg	36.8	954.2	ND	75.4	66-120	2.36	30	
Trichloroethene (Trichloroethylene)	1110	µg/kg	36.8	954.2	ND	116	75-122	6.36	30	
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	802	µg/kg	36.8	954.2	ND	84.0	51-115	14.9	30	
Vinyl chloride (Chloroethene)	911	µg/kg	36.8	954.2	ND	95.5	43-128	7.85	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	916	<i>µg/kg</i>		954.2		96.0	80-120	3.23	30	
<i>Surr: 4-Bromofluorobenzene</i>	877	<i>µg/kg</i>		954.2		91.9	80-120	9.09	30	
<i>Surr: Dibromofluoromethane</i>	975	<i>µg/kg</i>		954.2		102	80-120	0.780	30	
<i>Surr: Toluene-d8</i>	942	<i>µg/kg</i>		954.2		98.7	80-120	3.78	30	

The following samples were analyzed in this batch: HN2511149-001, HN2511149-002, HN2511149-003



right solutions.
right partner.

October 21, 2025

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

Re: **DETR0060**

Date Received: **10/08/2025**

Work Order: **HN2514821**

Revision: **1**

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

Dale Schipper

/S/ DALE SCHIPPER

Project Manager



Client: The Mannik & Smith Group, Inc.
Project: DETR0060

Work Order: HN2514821
Date Received: 08-Oct-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

1 soil/solid sample was received for analysis at ALS Environmental on 08-Oct-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.

SAMPLE SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Workorder: HN2514821

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2514821-001	3751 Northwestern SB01 TCLP	SOIL/SOLID	10/07/25 11:50	10/08/25 07:00

REPORT QUALIFIERS AND DEFINITIONS

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

Holland Laboratory Certifications¹

Agency	Type	ID	Issued	Expires
Alabama	Drinking Water (Secondary)	42500	12/17/2024	12/31/2025
Colorado	UST		07/01/2025	06/30/2026
Connecticut	Drinking Water (Secondary)	PH-0155	12/10/2024	12/31/2026
Florida	NELAP (Primary)	E871106	07/01/2025	06/30/2026
Illinois	NELAP (Secondary)	200076	11/14/2024	12/31/2025
Indiana	Drinking Water (Secondary)	C-MI-08	12/31/2024	09/04/2026
Iowa	State Specific	403	09/18/2023	09/01/2025
Kansas	NELAP (Secondary)	E-10411	07/09/2024	07/31/2025
Kentucky	Waste Water	KY98004	12/20/2024	12/31/2025
Kentucky	UST	120474	06/24/2024	06/30/2025
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	07/01/2024	6/30/2025
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	06/14/2024	07/31/2025
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	08/15/2024	08/31/2025

¹ - Scope available upon request

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2514821
Date Collected: 10/07/25 11:50
Date Received: 10/08/25 07:00

CLIENT ID: 3751 Northwestern SB01 TCLP	Lab ID: HN2514821-001
---	------------------------------

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
TCLP Metals								
Arsenic	EPA 6020B	<0.00190	U	mg/L	0.0499	1	10/14/25 18:35	10/12/25 09:34
Chromium	EPA 6020B	<0.00610	U	mg/L	0.0499	1	10/14/25 18:35	10/12/25 09:34
Mercury	EPA 7470A	<0.00160	U	mg/L	0.0020 0	1	10/20/25 12:32	10/17/25 15:49

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2272800

Work Order: HN2514821
Date Collected: NA
Date Received: NA
Run ID: 3584478

TCLP Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2272800-001
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 10/13/25 22:50
Prep Date: 10/12/25 09:35

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	<0.00190	mg/L	0.0499							U

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2272800-002
------------	---	-------------------------------

Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 10/13/25 22:52
Prep Date: 10/12/25 09:35

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	0.926	mg/L	0.0499	1		92.6	80-120			

The following samples were analyzed in this batch: HN2514821-001



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2272800

Work Order: HN2514821
Date Collected: NA
Date Received: NA
Run ID: 3586409

TCLP Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2272800-001
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 10/14/25 18:14
Prep Date: 10/12/25 09:35

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Spike Amount</u>	<u>Spike Ref. Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>	<u>RPD</u>	<u>RPD Limit</u>	<u>Qual</u>
Chromium	<0.00610	mg/L	0.0499							U

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2272800-002
------------	---	-------------------------------

Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 10/14/25 18:16
Prep Date: 10/12/25 09:35

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Spike Amount</u>	<u>Spike Ref. Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>	<u>RPD</u>	<u>RPD Limit</u>	<u>Qual</u>
Chromium	0.932	mg/L	0.0499	1		93.2	80-120			

The following samples were analyzed in this batch: HN2514821-001

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2281919

Work Order: HN2514821
Date Collected: NA
Date Received: NA
Run ID: 3599885

TCLP Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2281919-001
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Method: EPA 7470A **Dilution:** 1 **Analysis Date:** 10/20/25 12:28
Prep Date: 10/17/25 15:50

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	<0.00160	mg/L	0.00200							U

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2281919-002
------------	---	-------------------------------

Method: EPA 7470A **Dilution:** 1 **Analysis Date:** 10/20/25 12:30
Prep Date: 10/17/25 15:50

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.0204	mg/L	0.00200	0.02		102	80-120			

MS	CLIENT ID: 3751 Northwestern SB01 TCLP	Lab ID: QC-2281919-004
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Method: EPA 7470A **Dilution:** 1 **Analysis Date:** 10/20/25 12:33
Prep Date: 10/17/25 15:50

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.0201	mg/L	0.00200	0.02	<0.00160	102	75-125			

MSD	CLIENT ID: 3751 Northwestern SB01 TCLP	Lab ID: QC-2281919-005
------------	---	-------------------------------

Method: EPA 7470A **Dilution:** 1 **Analysis Date:** 10/20/25 12:41
Prep Date: 10/17/25 15:50

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.0201	mg/L	0.00200	0.02	<0.00160	102	75-125	0.00	20	

The following samples were analyzed in this batch: HN2514821-001

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: DETR0060

Work Order: HN2514821

Sample Name: 3751 Northwestern SB01 TCLP
Laboratory Code: HN2514821-001
Sample Matrix: SOIL/SOLID

Date Collected: 10/07/25
Date Received: 10/08/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 6020B	EPA 3015A	001-AD	2272800	Nicolee Allen	3586409	Denise Coffey
EPA 7470A	Method	001-AD	2281919	Maxx Richey	3599885	Maxx Richey



ALS Environmental

Laboratory location:

Chain of Custody Form

Page 1 of 1

Customer Information		Project Information						Parameter/Method Request for Analysis				
Purchase Order		Project Name	3751 Northwestern				A	TCLP Arsenic				
Work Order	Quote ID - 11631	Project Number	DETR0060				B					
Company Name	Mannik Smith Group	Bill To Company	Mannik Smith Group				C					
Send Report To	Ryan Montri	Invoice Attn.					D					
Address	2365 South Haggerty Road	Address	2365 South Haggerty Road				E					
City/State/Zip	Canton, Mi 48188	City/State/Zip	Canton, Mi 48188				F					
Phone	734-397-3100	Phone	734-397-3100				G					
Fax		Fax					H					
e-Mail Address	rmontri@manniksmithgroup.com	e-Mail Address					I					
						J						
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	
1	3751 Northwestern SBO1 TCLP	10/7/25	1150	Soil		2	X					
2												
3												
4												
5												
6												
7												
8												
9												
10												

Sampler(s): Please Print & Sign Shannon Kaczmarek		Shipment Method:		Required Turnaround Time: ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour		Results Due Date:	
Relinquished by: Shannon Kaczmarek		Date: 10/7/25	Time: 1441	Received by: Edmund B. Sosa		Notes: rd: 10/7/25 1200 rec: 10/7/25 1200	
Relinquished by: Edmund B. Sosa		Date: 10/7/25	Time: 1529	Received by (Laboratory):		Cooler Temp. 12.7 1.5C	
Logged by (Laboratory): BH		Date: 10/8/25	Time: 11:41	Checked by (Laboratory):		QC Package: (Check Box Below) Level II: Standard QC Level III: Std QC + Raw Data Level IV: SW846 CLP-Like Other:	
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035							

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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QS to Brittany H 10/8/25 0700



ALS Holland Sample Receiving Checklist

Received by:

~~10/18/25~~^{8th} Brittaugh

Date/Time:

10/18/25 07:00

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):

1.5/1.5c

Thermometer(s):

127

Sample(s) received on ice?

☒ Yes / No

Matrix/Matrices:

Soil

Cooler(s)/Kit(s):

1

Date/Time sample(s) sent to storage:

10/18/25 11:41

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:



right solutions.
right partner.

October 31, 2025

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

Re: **DETR0060**

Date Received: **10/29/2025**

Work Order: **HN2516146**

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

Dale Schipper

/s/ JODI BLOUW on behalf of PM listed above

Project Manager



Client: The Mannik & Smith Group, Inc.
Project: DETR0060

Work Order: HN2516146
Date Received: 29-Oct-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

1 soil/solid sample was received for analysis at ALS Environmental on 29-Oct-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.

SAMPLE SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Workorder: HN2516146

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2516146-001	3751 Northwestern SB01(5-6')-R	SOIL/SOLID	10/28/25 12:11	10/29/25 08:00



ALS Environmental

Laboratory location:

Chain of Custody Form

Page 1 of 1

ALS Project Manager:		Work Order #:															
Customer Information		Project Information		Parameter/Method Request for Analysis													
Purchase Order		Project Name	3751 Northwestern			A	Pesticides (U.S. EPA Method 8081B (or Method 8081))										
Work Order		Project Number	DETR0060			B	Herbicides (U.S. EPA Method 8151A (or Method 8151))										
Company Name	The Mannik and Smith Group	Bill To Company	The Mannik and Smith Group			C											
Send Report To	Ryan Montri	Invoice Attn.				D											
Address	2365 Haggerty Rd South Suite 100	Address	2365 Haggerty Rd South Suite 100			E											
						F											
City/State/Zip	Canton, MI 48188	City/State/Zip	Canton, MI 48188			G											
Phone	734-397-3100	Phone	734-397-3100			H											
Fax		Fax				I											
e-Mail Address	RMontri@manniksmithgroup.com	e-Mail Address				J											
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	3751 Northwestern SB01(5-6')-R	10/28/25	1211	Soil	None	1	X	X									
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
Sampler(s): Please Print & Sign WILEY DAVENPORT		Shipment Method:		Required Turnaround Time: ☐ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☒ Other: 72 hrs				Results Due Date:									
Relinquished by: WILEY DAVENPORT		Date: 10/28/25	Time: 1617	Received by:			Notes: Quote# HN-061825-M&S-MA										
Relinquished by:		Date: 10/28	Time: 1617	Received by (Laboratory): QS			Cooler Temp. 3.4/16										
Logged by (Laboratory):		Date: 10-29-25	Time: 800	Checked by (Laboratory):			QC Package: (Check Box Below) ☐ Level II: Standard QC ☐ TRRP-Checklist ☐ Level III: Std QC + Raw Data ☐ TRRP Level IV ☐ Level IV: SW846 CLP-Like										
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-S035																	
Other:																	

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
Signature denotes acceptance of ALS Group USA, Corp. Terms and Conditions - Please click the link below for detailed Terms & Conditions:
<https://www.alsglobal.com/ALSGroupUSACorpTC>
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ALS Holland
3352 128th Ave., Holland MI 49424

ALS Holland Sample Receiving Checklist

Received by: _____

Date/Time: _____

Carrier Name: _____

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): _____

Thermometer(s): _____

Sample(s) received on ice?

Yes / No

Matrix/Matrices: _____

Cooler(s)/Kit(s): _____

Date/Time sample(s) sent to storage: _____

Water – VOA vials have zero headspace?

Yes / No / No Vials

Water – pH acceptable upon receipt?

Yes / No / N/A

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

pH adjusted (note adjustments below)?

Yes / No / N/A

pH adjusted by: _____

Login Notes:

HN-SHT-160-R01, Sample Receipt Checklist

REPORT QUALIFIERS AND DEFINITIONS

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

Holland Laboratory Certifications¹

Agency	Type	ID	Issued	Expires
Alabama	Drinking Water (Secondary)	42500	12/17/2024	12/31/2025
Colorado	UST		07/01/2025	06/30/2026
Connecticut	Drinking Water (Secondary)	PH-0155	12/10/2024	12/31/2026
Florida	NELAP (Primary)	E871106	07/01/2025	06/30/2026
Illinois	NELAP (Secondary)	200076	11/14/2024	12/31/2025
Indiana	Drinking Water (Secondary)	C-MI-08	12/31/2024	09/04/2026
Iowa	State Specific	403	09/18/2023	09/01/2025
Kansas	NELAP (Secondary)	E-10411	07/09/2024	07/31/2025
Kentucky	Waste Water	KY98004	12/20/2024	12/31/2025
Kentucky	UST	120474	06/24/2024	06/30/2025
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	07/01/2024	6/30/2025
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	06/14/2024	07/31/2025
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	08/15/2024	08/31/2025

¹ - Scope available upon request

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: DETR0060

Work Order: HN2516146

Sample Name: 3751 Northwestern SB01(5-6')-R
Laboratory Code: HN2516146-001
Sample Matrix: SOIL/SOLID

Date Collected: 10/28/25
Date Received: 10/29/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 8081B	EPA 3546	001-AA	2305050	Mya Harmer	3641348	Madison VandenBer
EPA 8151A	Method	001-AA	2309163	Sam Bruzan	3642247	Kathy Malmyga

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2516146
Date Collected: 10/28/25 12:11
Date Received: 10/29/25 08:00

CLIENT ID: 3751 Northwestern SB01(5-6')-R

Lab ID: HN2516146-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorinated Herbicides by GC/ECD								
2,4,5-T	EPA 8151A	<2.65	U	µg/kg	14.4	1	10/30/25 19:24	10/29/25 10:50
2,4,5-TP (Silvex)	EPA 8151A	<4.72	U	µg/kg	14.4	1	10/30/25 19:24	10/29/25 10:50
2,4-D	EPA 8151A	<7.69	U	µg/kg	28.8	1	10/30/25 19:24	10/29/25 10:50
Surr: DCAA	EPA 8151A	42.0		%REC	10-116	1	10/30/25 19:24	10/29/25 10:50
Organochlorine Pesticides by GC/ECD								
4,4'-DDD	EPA 8081B	<18.6	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
4,4'-DDE	EPA 8081B	<19.1	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
4,4'-DDT	EPA 8081B	<19.3	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
Aldrin	EPA 8081B	<18.9	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
alpha-BHC	EPA 8081B	<19.1	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
beta-BHC	EPA 8081B	<19.1	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
Chlordane, Technical	EPA 8081B	<28.8	U	µg/kg	72.7	1	10/30/25 00:12	10/29/25 11:36
cis-Chlordane	EPA 8081B	<19.4	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
delta-BHC	EPA 8081B	<19.0	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
Dieldrin	EPA 8081B	<20.3	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
Endosulfan I	EPA 8081B	<19.5	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
Endosulfan II	EPA 8081B	<19.2	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
Endosulfan sulfate	EPA 8081B	<17.9	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
Endrin	EPA 8081B	<23.5	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
Endrin aldehyde	EPA 8081B	<18.4	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
Endrin ketone	EPA 8081B	<17.7	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
gamma-BHC (Lindane)	EPA 8081B	<19.1	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
Heptachlor	EPA 8081B	<18.8	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
Heptachlor epoxide	EPA 8081B	<19.2	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
Methoxychlor	EPA 8081B	<19.4	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
Toxaphene	EPA 8081B	<31.4	U	µg/kg	174	1	10/30/25 00:12	10/29/25 11:36
trans-Chlordane	EPA 8081B	<19.3	U	µg/kg	29.1	1	10/30/25 00:12	10/29/25 11:36
Surr: Decachlorobiphenyl	EPA 8081B	108		%REC	53-151	1	10/30/25 00:12	10/29/25 11:36
Surr: Tetrachloro-m-xylene	EPA 8081B	91.9		%REC	67-127	1	10/30/25 00:12	10/29/25 11:36



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2309163

Work Order: HN2516146
Date Collected: NA
Date Received: NA
Run ID: 3642247

Chlorinated Herbicides by GC/ECD

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2309163-002
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 10/30/25 16:49
Prep Date: 10/29/25 10:50

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	30.0	µg/kg	5.00	50		60.0	10-119			
2,4,5-TP (Silvex)	29.0	µg/kg	5.00	50		58.0	10-101			
2,4-D	26.0	µg/kg	10.0	50		52.0	10-128			
Surr: DCAA	27.0	µg/kg		50		54.0	10-116			

MS	CLIENT ID: Batch QC	Lab ID: QC-2309163-005
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 10/30/25 17:02
Prep Date: 10/29/25 10:50

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	74.5	µg/kg	14.5	124.22	<2.29	60.0	10-119			
2,4,5-TP (Silvex)	72.0	µg/kg	14.5	124.22	<4.07	58.0	10-101			
2,4-D	72.0	µg/kg	29.0	124.22	<6.63	58.0	10-128			
Surr: DCAA	77.0	µg/kg		124.22		62.0	10-116			

MSD	CLIENT ID: Batch QC	Lab ID: QC-2309163-006
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 10/30/25 17:15
Prep Date: 10/29/25 10:50

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	67.3	µg/kg	14.6	124.69	<2.29	54.0	10-119	10.2	30	
2,4,5-TP (Silvex)	64.8	µg/kg	14.6	124.69	<4.09	52.0	10-101	10.5	30	
2,4-D	67.3	µg/kg	29.1	124.69	<6.66	54.0	10-128	6.77	30	
Surr: DCAA	67.3	µg/kg		124.69		54.0	10-116	13.4	30	

MB	CLIENT ID: Method Blank	Lab ID: QC-MRG2-2309163001
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 10/30/25 16:36
Prep Date: 10/29/25 10:50

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	30.0	µg/kg		50		60.0	10-116			

The following samples were analyzed in this batch: HN2516146-001



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2305050

Work Order: HN2516146
Date Collected: NA
Date Received: NA
Run ID: 3641348

Organochlorine Pesticides by GC/ECD

MB	CLIENT ID: Method Blank	Lab ID: QC-2305050-001
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Method: EPA 8081B

Dilution: 1

Analysis Date: 10/29/25 23:02

Prep Date: 10/29/25 11:37

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	35.8	µg/kg		33.33		107	53-151			
Surr: Tetrachloro-m-xylene	28.7	µg/kg		33.33		86.2	67-127			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2305050-002
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Method: EPA 8081B

Dilution: 1

Analysis Date: 10/29/25 23:14

Prep Date: 10/29/25 11:37

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	27.5	µg/kg	10.0	33.33		82.6	55-141			
4,4'-DDE	29.8	µg/kg	10.0	33.33		89.5	55-143			
4,4'-DDT	34.7	µg/kg	10.0	33.33		104	50-144			
Aldrin	30.6	µg/kg	10.0	33.33		91.7	57-141			
alpha-BHC	30.4	µg/kg	10.0	33.33		91.2	58-144			
beta-BHC	30.4	µg/kg	10.0	33.33		91.2	55-147			
cis-Chlordane	30.0	µg/kg	10.0	33.33		90.2	58-142			
delta-BHC	24.8	µg/kg	10.0	33.33		74.4	59-142			
Dieldrin	30.7	µg/kg	10.0	33.33		92.1	59-142			
Endosulfan I	29.2	µg/kg	10.0	33.33		87.8	57-145			
Endosulfan II	29.2	µg/kg	10.0	33.33		87.8	58-138			
Endosulfan sulfate	28.3	µg/kg	10.0	33.33		85.0	54-136			
Endrin	34.8	µg/kg	10.0	33.33		104	45-150			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2305050

Work Order: HN2516146
Date Collected: NA
Date Received: NA
Run ID: 3641348

LCS		CLIENT ID: Laboratory Control Sample				Lab ID: QC-2305050-002			
Method: EPA 8081B		Dilution: 1		Analysis Date: 10/29/25 23:14		Prep Date: 10/29/25 11:37			
Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit Qual
Endrin aldehyde	36.8	µg/kg	10.0	33.33		111	41-147		
Endrin ketone	27.6	µg/kg	10.0	33.33		82.7	54-146		
gamma-BHC (Lindane)	30.6	µg/kg	10.0	33.33		91.9	58-145		
Heptachlor	31.8	µg/kg	10.0	33.33		95.3	51-145		
Heptachlor epoxide	30.7	µg/kg	10.0	33.33		92.1	59-143		
Methoxychlor	33.4	µg/kg	10.0	33.33		100	43-144		
trans-Chlordane	30.0	µg/kg	10.0	33.33		90.0	56-145		
Surr: Decachlorobiphenyl	29.8	µg/kg		33.33		89.3	51-151		
Surr: Tetrachloro-m-xylene	25.8	µg/kg		33.33		77.4	67-127		

The following samples were analyzed in this batch: HN2516146-001