

DRAFT

FILL MATERIAL SAMPLING REPORT

**11118 WHITHORN STREET
DETROIT, WAYNE COUNTY, MICHIGAN 48205**



**NOVEMBER 4, 2025
REVISED NOVEMBER 18, 2025**

PREPARED FOR:

THE CITY OF DETROIT DEMOLITION DEPARTMENT

1301 THIRD STREET, SUITE 606

DETROIT, MICHIGAN 48226



FILL MATERIAL SAMPLING REPORT

**11118 WHITHORN STREET
DETROIT, WAYNE COUNTY, MICHIGAN 48205**

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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 11118 Whithorn 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 11118 SB01, 11118 SB02, and 11118 SB03 generally consisted of one to five feet of brown sand with little gravel underlain by grayish brown clay with some gravel and sand to six feet bgs, the maximum depth explored for this investigation. Field PID readings of the recovered soil cores were below instrument detection limits. There were no visual (staining) and/or olfactory (e.g., petroleum-like odors) indications of contamination observed during soil sampling activities.
- Concentrations of arsenic were detected in soil sample 11118 SB01 (1-2') in excess of its respective Part 201 drinking water protection criteria (DWPC) and groundwater surface water interface protection criteria (GSIPC).
- Concentrations of 4,4-DDE, 4,4-DDT, chlorine, barium, total chromium, copper, lead, mercury, and zinc were detected in soil samples 11118 SB01 (1-2'), 11118 SB02 (3-4'), and/or 11118 SB03 (5-6') at concentrations above laboratory method detection limits; however, detected concentrations were below their respective Part 201 GRCC and/or Statewide Default Background Levels.
- Toxicity Characteristic Leaching Procedure (TCLP) laboratory analytical results revealed that concentrations of arsenic and lead 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*.
- VOCs, SVOCs, and PCBs were not detected above laboratory method detection reporting limits.
- Groundwater is not utilized as drinking water at or near the Site, as municipal water is supplied via the COD, and the general geology of the Site and surrounding area consists of fill materials underlain by clay overlying bedrock. Therefore, the drinking water (DW) exposure pathway can be considered not applicable. Additionally, groundwater was not encountered during this investigation to transport contaminants to either storm sewers or surface water and the clay layer also inhibits migration, therefore, the groundwater surface water exposure pathway can be considered not applicable.

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

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

DRAFT

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1.0 INTRODUCTION

The Mannik & Smith Group, Inc. (MSG) was retained by the City of Detroit (COD) to conduct sampling and analysis of fill materials at the property commonly addressed as 11118 Whithorn 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 12, 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 12, 2025 and October 13, 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) soil borings, designated 11118 SB01, 11118 SB02, and 11118 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-sterilized 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 13, 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 using 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.

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 three (3) soil samples, designated 11118 SB01 (1-2'), 11118 SB02 (3-4'), and 11118 SB03 (5-6'), and one (1) composite soil sample designated 11118 Whithorn 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 and equipment 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 12, 2025 and October 13, 2025.

4.1 Site Geology and Hydrogeology

The stratigraphy encountered during soil boring advancement of 11118 SB01, 11118 SB02, and 11118 SB03 generally consisted of one to five feet of brown sand with little gravel underlain by grayish brown clay with some gravel and sand to six feet bgs, the maximum depth explored for this investigation. Field PID readings of the recovered soil cores were below instrument detection limits. There were no visual (staining) and/or olfactory (e.g., petroleum-like odors) indications of contamination observed during soil sampling activities.

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

4.2 Soil Sample Analytical Results

A total of three (3) soil samples, designated 11118 SB01 (1-2'), 11118 SB02 (3-4'), and 11118 SB03 (5-6'), were collected from the Site and submitted to ALS for laboratory analysis of VOCs, SVOCs, PCBs, Michigan 10 Metals, chloride, herbicides, and pesticides.

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

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

Chemical	CAS Number	Soil Sample (feet bgs)	Part 201 GRCC Exceeded / Concentration (µg/kg ¹)	Maximum Detected Concentration (µg/kg)
Arsenic	7440-38-2	11118 SB01 (1-2')	² DWPC/4,600 ³ GSIPC/4,600	5,900

¹µg/kg – micrograms per kilogram;

²DWPC – Drinking Water Protection Criteria

³GSIPC – Groundwater Surface Water Interface Protection Criteria

To support waste characterization and potential disposal decisions, the laboratory was requested to include the method detection limits in an amended laboratory analytical data report. A copy of the amended laboratory analytical data report is included in *Appendix F, Amended Laboratory Analytical Data Report*.

4.3 TCLP Analytical Results

Arsenic and lead 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.

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 11118 SB01, 11118 SB02, and 11118 SB03 generally consisted of one to five feet of brown sand with little gravel underlain by grayish brown clay with some gravel and sand to six feet bgs, the maximum depth explored for this investigation. Field PID readings of the recovered soil cores were below instrument detection limits. There were no visual (staining) and/or olfactory (e.g., petroleum-like odors) indications of contamination observed during soil sampling activities.
- Concentrations of arsenic were detected in soil sample 11118 SB01 (1-2') in excess of its respective Part 201 DWPC and GSIPC.
- Concentrations of 4,4-DDE, 4,4-DDT, chlorine, barium, total chromium, copper, lead, mercury, and zinc were detected in soil samples 11118 SB01 (1-2'), 11118 SB02 (3-4'), and/or 11118 SB03 (5-6') at

concentrations above laboratory method detection limits; however, detected concentrations were below their respective Part 201 GRCC and/or Statewide Default Background Levels.

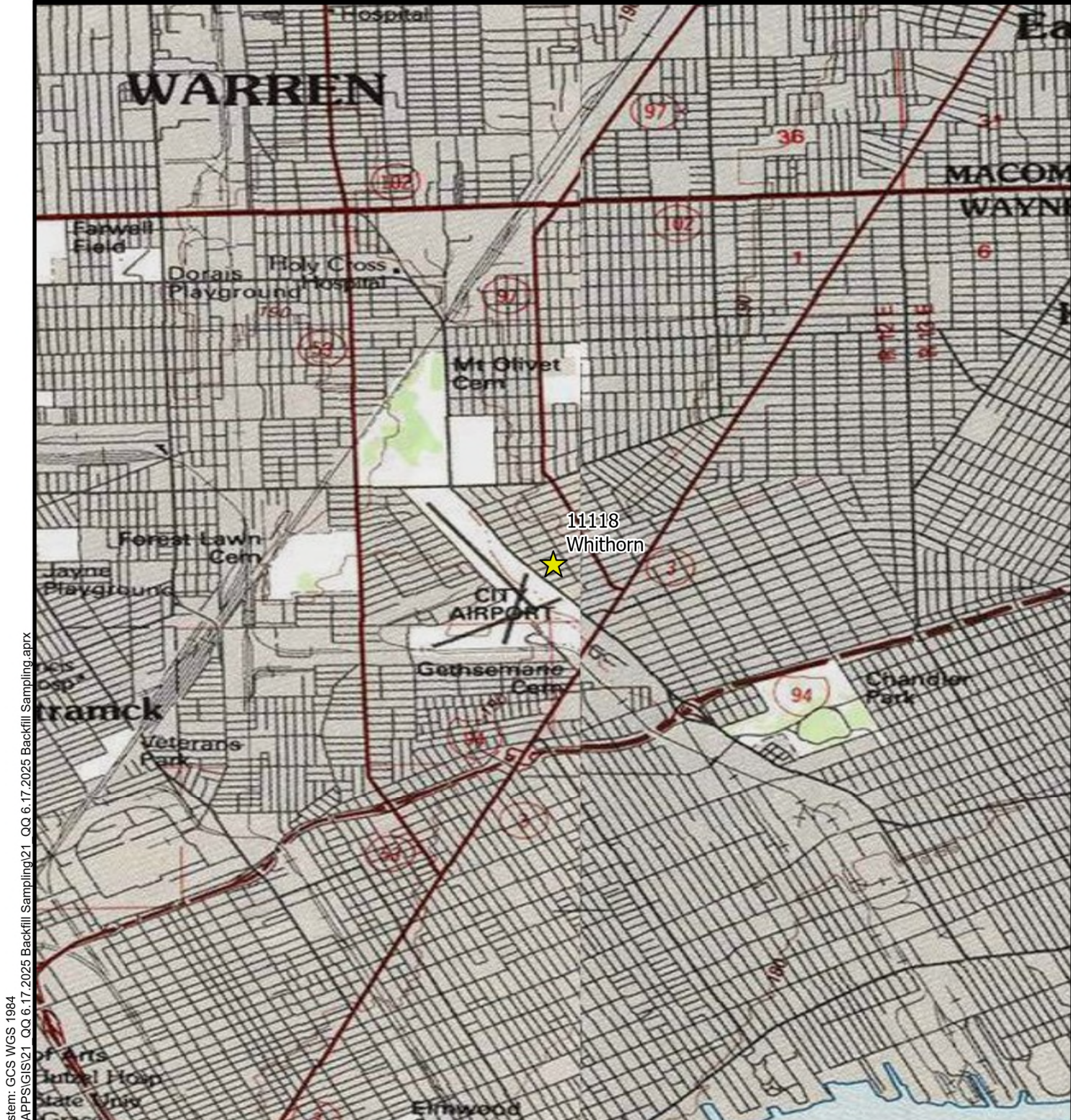
- TCLP laboratory analytical results revealed that concentrations of arsenic and lead were not in excess of 40 C.F.R. § 261.24 Title 40 - Protection of Environment, Chapter I - Environmental Protection Agency, Subchapter I - Solid Wastes, Part 261- Identification and Listing of Hazardous Waste, Subpart C - Characteristics of Hazardous Waste.
- VOCs, SVOCs, and PCBs were not detected above laboratory method detection reporting limits.
- 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.

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.

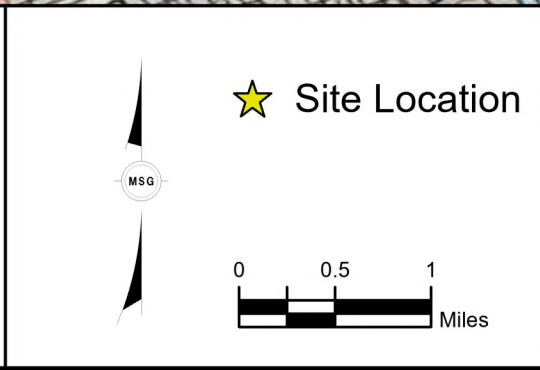
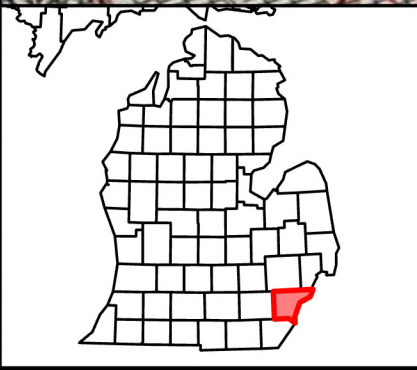
MSG warrants that no substantive information or documentation was deleted, omitted, or changed that would otherwise cause the MSG to reach a different conclusion. Furthermore, MSG understands that the COD and its agencies and authorities may rely upon the overall completeness, accuracy, and conclusions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

FIGURES





Date Saved: 9/22/2025 8:38 PM Coordinate System: GCS WGS 1984
 Path: W:\Projects\Projects A-E\DET0060\ENG\APPS\GIS\21_QQ 6.17.2025 Backfill Sampling\21_QQ 6.17.2025 Backfill Sampling.aprx





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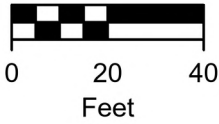
FIGURE 1

SITE LOCATION

11118 Whithorn, Detroit, MI

DATE 9/23/2025	DRAWN BY JWW	DESIGNED BY JWW	PROJECT NO. DET0060
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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

11118 Whithorn, 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
11118 Whithorn, 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)	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	72559	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	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	NA	--	--		
SAMPLE ID		DEPTH	SAMPLE DATE																
11118 SB01		1-2	8/12/2025	ND	ND	5,900	90,800	<1,380	13,400	21,000	258,000	21.9	<3,460	<3,460	179,000	16	4.2	ND	<11,400
11118 SB02		3-4	8/12/2025	ND	ND	3,400	6,330	<1,170	4,030	5,470	2,990	<20	<2,920	<2,920	14,500	<2.6	<2.6	ND	<10,700
11118 SB03		5-6	8/12/2025	ND	ND	<3,520	15,300	<1,410	5,970	5,490	<3,520	<21.4	<3,520	<3,520	19,000	<6.0	<6.0	ND	14,600

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
11118 Whithorn, 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	Lead
Maximum Concentration of Contaminants for the Toxicity Characteristic		5.00	5.00
SAMPLE ID	SAMPLE DATE		
11118 Whithorn	10/13/2025	<0.00190	<0.00220

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: <u>08/12/2025</u>	Day: <u>Tuesday</u>	Temp: <u>N/A</u> (AM) <u>80 ° F</u> (PM)
MSG Personnel: <u>SRK, BM</u>	Cloud Cover: <u>N/A</u> (AM) <u>60%</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 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:
1352 – SRK and BM onsite (11118 Whithorn Street) 1355 – Unloaded equipment and marked boring locations 1400 – Began drilling SB01 1402 – Finished drilling SB01 1404 – Began drilling SB02 1405 – Sampled 11118 SB01 (1-2') 1406 – Finished drilling SB02 1408 – Began drilling SB03 1410 – Finished drilling SB03 1412 – Sampled 11118 SB02 (3-4') 1425 – Sampled 11118 SB03 (5-6') 1430 – Packed up equipment 1440 – MSG off site

Supporting Documentation					
Photograph Taken	Yes ☒	No ☐	Samples Collected	Yes ☒	No ☐
Photo Log Attached	Yes ☒	No ☐	COC Attached	Yes ☒	No ☐
			Boring/MW Logs	Yes ☒	No ☐
			Field Note Book Taken	Yes ☒	No ☐
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: 10/13/2025	Day: Monday	Temp: 50 ° F	(AM)	N/A	(PM)
MSG Personnel: SRK, JF		Cloud Cover: 0%	(AM)	N/A	(PM)
		Precip.: N/A	(AM)	N/A	(PM)
Personnel: MSG					
MSG Hours On-Site: ~ 1 hours					
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 TCLP of fill material from soil boring (composite sample of from zero to 6 feet bgs).					
Field Notes:					
1005 – MSG (SRK, JF) onsite (11118 Whithorn) 1007 – Attempted to locate previous boring locations. Marked out new boring location. 1015 – Began drilling SB01 TCLP 1017 – Finished drilling SB01 TCLP 1024 – Sampled 11118 Whithorn SB01 TCLP 1035 – Collected GPS points 1042 – Packed up equipment 1045 – 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

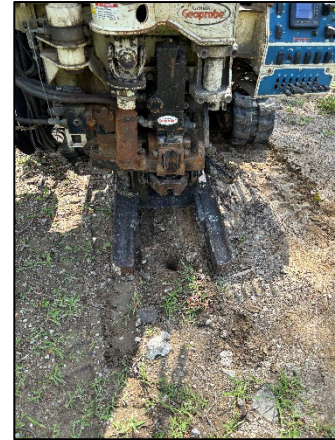


Photo 2: Viewing 11118 SB01 Drilling, Facing East.



Photo 3: Viewing 11118 SB01 Soils, Facing Southeast.



Photo 4: Viewing 11118 SB02 Drilling, Facing East.



Photo 5: Viewing 11118 SB02 Soils, Facing Southeast.

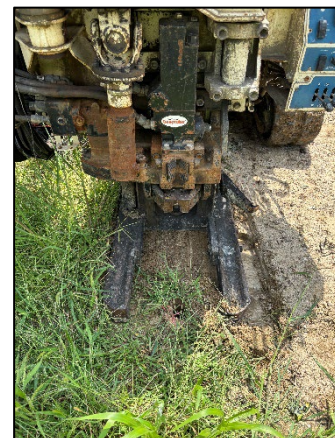


Photo 6: Viewing 11118 SB03 Drilling, Facing East.



Photo 7: Viewing 11118 SB03 Soils, Facing Southeast.



Photo 8: View of Site at the time of TCLP soil boring activities



Photo 9: View TCLP soil boring location



Photo 10:View of soil recovery at the time of TCLP sampling

APPENDIX D

SOIL BORING LOGS





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

CLIENT City of Detroit

PROJECT NAME 11118 Whithorn

PROJECT NUMBER DETR0060

PROJECT LOCATION 11118 Whithorn St, Detroit, Michigan

DATE STARTED 8/12/25 COMPLETED 8/12/25

BORING DIAMETER: 3.25 inches

DRILLING CONTRACTOR MSG

SURVEY COORDINATES: N/A

DRILLING METHOD Direct Push

GROUND SURFACE ELEV.: N/A

LOGGED BY SRK CHECKED BY PDH

☐ GROUND WATER ENCOUNTERED DURING DRILLING: Not Encountered

NOTES _____

☒ WATER LEVEL AFTER DRILLING: N/A

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 8/20/25 09:44 - W:\PROJECTS\PROJECTS A-EDETR0060\ADMIN\23_QQ 7.25 2025 BACKFILL SAMPLING (48 SITES)\11118 WHITHORNBORING LOGS\DETR0060_11118.GPJ

DEPTH (FEET)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	DEPTH (FEET)	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0								
					Brown and Gray Silty CLAY, some sand, some gravel, dry	0.0		
						0.0		
						0.0		
						0.0		
						0.0		
5						0.0		
	MC 1	5.0				0.0		
					Becomes moist at 5 feet bgs	0.0		
				6.0		0.0		
					Bottom of borehole at 6.0 feet.			



Collected soil sample 11118 SB01 (1-2) at 14:05



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

BORING ID: SB02

PAGE 1 OF 1

CLIENT	City of Detroit	PROJECT NAME	11118 Whithorn
PROJECT NUMBER	DETR0060	PROJECT LOCATION	11118 Whithorn St, Detroit, Michigan
DATE STARTED	8/12/25	COMPLETED	8/12/25
DRILLING CONTRACTOR	MSG	BORING DIAMETER:	3.25 inches
DRILLING METHOD	Direct Push	SURVEY COORDINATES:	N/A
LOGGED BY	SRK	CHECKED BY	PDH
NOTES	GROUND WATER ENCOUNTERED DURING DRILLING: Not Encountered		
		WATER LEVEL AFTER DRILLING: N/A	

ENV BORING LOG (PID) - GINT STD US LAB.GDT - 8/20/25 09:44 - W:\PROJECTS\PROJECTS A-EDETR0060\ADMIN\23_QQ 7.25.2025 BACKFILL SAMPLING (48 SITES)\11118 WHITHORNBORING LOGS\DETR0060_11118.GPJ

DEPTH (FEET)	SAMPLE TYPE NUMBER	RECOVERY (FEET)	GRAPHIC LOG	DEPTH (FEET)	MATERIAL DESCRIPTION	PID (ppm)	LABORATORY SAMPLE	REMARKS
0								
5	MC 1	2.0		5.0	Brown SAND, trace gravel	0.0		
				6.0	Brown and Gray Silty CLAY, trace gravel	0.0		
					Bottom of borehole at 6.0 feet.	0.0		
								Collected soil sample 11118 SB02 (3-4) at 14:12

ENVY BORING LOG (PID) - GINT STD US LAB.GDT - 8/20/25 09:44 - W:\PROJECTS\PROJECTS A-EIDETR0060\ADMIN\23_QQ 7.25.2025 BACKFILL SAMPLING (48 SITES)\11118 WHITHORNBORING LOGS\DETR0060_11118.GPJ

APPENDIX E

LABORATORY ANALYTICAL REPORTS AND CHAIN OF CUSTODY FORMS





right solutions.
right partner.

CERTIFICATE OF ANALYSIS

Work Order

HN2511317

Client

The Mannik & Smith Group, Inc.

Project

11118_Whithorn

Project Date

August 13, 2025

Reporting Contact

Ryan Montri



right solutions.
right partner.

September 02, 2025

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

Work Order: **HN2511317**

Re: **11118_Whithorn**

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: 11118_Whithorn

Work Order: HN2511317
Date Received: 13-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 13-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: 3410824

The MS recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Pb Batch 2165850

The RPD between the MS and MSD was outside of the control limit. The corresponding result should be considered estimated for this compound: Pb Batch 2165850

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, Fe, Zn Batch 2165850

The Continuing Calibration Verification did not meet acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: Ag batch 2165859

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, Fe, Zn Batch 2165850

The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Pb Batch 2165850

HN2511317-001: Silver - The reporting limit is elevated due to dilution for high concentrations of non-target analytes. Cd, Se, Ag

HN2511317-001: Selenium - The reporting limit is elevated due to dilution for high concentrations of non-target analytes. Cd, Se, Ag

HN2511317-002: Cadmium - The reporting limit is elevated due to dilution for high concentrations of non-target analytes. Cd, Se, Ag

HN2511317-002: Selenium - The reporting limit is elevated due to dilution for high concentrations of non-target analytes. Cd, Se, Ag

HN2511317-002: Silver - The reporting limit is elevated due to dilution for high concentrations of non-target analytes. Cd, Se, Ag



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn

Work Order: HN2511317
Date Received: 13-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: 3413394

The RPD between the MS and MSD was outside of the control limit. The corresponding result should be considered estimated for this compound: Se, Ag Batch 2165868
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): Se, Si Batch 2165868
The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Si Batch 2165859
The MSD recovery was outside of the control limit. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte: Na Batch 2165868
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: Mg Batch 2165859
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: Mg Batch 2165859
The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Mg, Ag Batch 2165868
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: As, Cr, Ni, Zn Batch 2165868
The MS recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Mg, Si Batch 2165868
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: As, Cr, Ni, Zn Batch 2165868
The MS recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Si Batch 2165859
The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: Se Batch 2165868
HN2511317-003: Sodium - The reporting limit is elevated due to dilution for high concentrations of non-target analytes. Ag, Na
HN2511317-003: Silver - The reporting limit is elevated due to dilution for high concentrations of non-target analytes. Ag, Na

Run ID: 3410807

The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Ba Batch 2165859
The MSD recovery was outside of the control limit. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte: Cr, K, Sr, Zn Batch 2165859
The Continuing Calibration Verification did not meet acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: Ag batch 2165859
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: Ca, Fe, Mn Batch 2165859
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: Ca, Fe, Mn Batch 2165859
The RPD between the MS and MSD was outside of the control limit. The corresponding result should be considered estimated for this compound: Ba Batch 2165859
HN2511317-003: Selenium - The reporting limit is elevated due to dilution for high concentrations of non-target analytes. As, Cd, Pb, Se



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn

Work Order: HN2511317
Date Received: 13-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: 3410807

HN2511317-003: Arsenic - The reporting limit is elevated due to dilution for high concentrations of non-target analytes. As, Cd, Pb, Se
HN2511317-003: Lead - The reporting limit is elevated due to dilution for high concentrations of non-target analytes. As, Cd, Pb, Se
HN2511317-003: Cadmium - The reporting limit is elevated due to dilution for high concentrations of non-target analytes. As, Cd, Pb, Se

Organics

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

Run ID: 3431242

The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: trans-1,3-dichloroethene
The MSD recovery was outside of the control limit. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte: methyl acetate, chloromethane
The Continuing Calibration Verification did not meet acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloromethane, dichlorodifluoromethane

Run ID: 3404198

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: 1,1-Dichloroethylene, 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113), 1,2,3-Trichlorobenzene

Run ID: 3411029

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 LCS recovery was below the lower control limit. Instrument sensitivity was verified as sufficient through the analysis of a low-level standard. The following non-detects are reported without qualification: methyl acetate

Inorganics

EPA 9056A-S (High)

Run ID: 3405747

Matrix spike value was outside upper limit of calibration. Processed at equivalent dilution level as the parent. C,S
Matrix spike duplicate value was outside upper limit of calibration. Processed at equivalent dilution level as the parent. C,S

Run ID: 3405747

HN2511317-001: Sulfate - 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): S

HN2511317-001: Sulfate - The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: S

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: 11118 SB01 (1-2)	Lab ID: HN2511317-001
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Analyte	Results	Flag	MRL	Units	Method
Arsenic	5.90		3.46	mg/kg	EPA 6020B
Barium	90.8		3.46	mg/kg	EPA 6020B
Chromium	13.4		3.46	mg/kg	EPA 6020B
Copper	21.0		3.46	mg/kg	EPA 6020B
Lead	258		3.46	mg/kg	EPA 6020B
Mercury	0.0219		0.0200	mg/kg	EPA 7471B
Percent Moisture	11.4		0.1	%	EPA 3550C
Subcontract Analysis	See attached.			-	EPA 8081B
Subcontract Analysis	See attached.			-	EPA 8082A
Subcontract Analysis	See attached.			-	EPA 8151A
Subcontract Analysis	See attached.			-	EPA 8270E
Zinc	179		6.92	mg/kg	EPA 6020B

CLIENT ID: 11118 SB02 (3-4)	Lab ID: HN2511317-002
-----------------------------	-----------------------

Analyte	Results	Flag	MRL	Units	Method
Arsenic	3.40		2.92	mg/kg	EPA 6020B
Barium	6.33		2.92	mg/kg	EPA 6020B
Chromium	4.03		2.92	mg/kg	EPA 6020B
Copper	5.47		2.92	mg/kg	EPA 6020B
Lead	2.99		2.92	mg/kg	EPA 6020B
Percent Moisture	5.4		0.1	%	EPA 3550C
Subcontract Analysis	See attached.			-	EPA 8081B
Subcontract Analysis	See attached.			-	EPA 8082A
Subcontract Analysis	See attached.			-	EPA 8151A
Subcontract Analysis	See attached.			-	EPA 8270E
Zinc	14.5		5.83	mg/kg	EPA 6020B

CLIENT ID: 11118 SB03 (5-6)	Lab ID: HN2511317-003
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Analyte	Results	Flag	MRL	Units	Method
Barium	15.3	S	3.52	mg/kg	EPA 6020B
Chloride	14.6		12.3	mg/kg	EPA 9056A
Chromium	5.97	S	3.52	mg/kg	EPA 6020B
Copper	5.49		3.52	mg/kg	EPA 6020B
Percent Moisture	17.4		0.1	%	EPA 3550C
Subcontract Analysis	See attached.			-	EPA 8081B
Subcontract Analysis	See attached.			-	EPA 8082A
Subcontract Analysis	See attached.			-	EPA 8151A
Subcontract Analysis	See attached.			-	EPA 8270E
Zinc	19.0	S	7.03	mg/kg	EPA 6020B

SAMPLE SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Workorder: HN2511317

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2511317-001	11118 SB01 (1-2)	SOIL/SOLID	08/12/25 14:05	08/13/25 08:00
HN2511317-002	11118 SB02 (3-4)	SOIL/SOLID	08/12/25 14:12	08/13/25 08:00
HN2511317-003	11118 SB03 (5-6)	SOIL/SOLID	08/12/25 14:25	08/13/25 08:00



ALS Environmental

Laboratory location:

Chain of Custody Form

Page 1 of 1

Customer Information				ALS Project Manager:				Work Order #:			
Project Information				Parameter/Method Request for Analysis							
Purchase Order		Project Name	11118_Whithorn	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 Monti	Invoice Attn		D	Mt 10 Metals (U.S. EPA 6000/7000 Series Methods)						
Address	2365 Haggerty Rd South Suite 100	Address	2365 Haggerty Rd South Suite 100	E	Chlorides (U.S. EPA Method 9056A)						
City/State/Zip	Canton, MI 48188	City/State/Zip	Canton, MI 48188	F	Pesticides (U.S. EPA Method 8081B (or Method 8081))						
Phone	734-397-3100	Phone	734-397-3100	G	Herbicides (U.S. EPA Method 8151A (or Method 8151))						
Fax		Fax		H							
e-Mail Address	RMonti@manniksmithgroup.com	e-Mail Address		I							
				J							
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A B C D E F G				
1	11118 SB01 (1-2)	8/12/25	1405	Soil	7	3	X X X X X X X				
2	11118 SB02 (3-4)		1412	Soil	7	3	X X X X X X X				
3	11118 SB03 (5-6)		1425	Soil	7	3	X X X X X X X				
4											
5											
6											
7											
8											
9											
10											
Sampler(s): Please Print & Sign		Shipment Method:		Required Turnaround Time:		Results Due Date:					
Signature: Ryan Monti				☐ STD 10 Wk Days ☒ 3 Wk Days ☐ 2 Wk Days ☐ Other ☐ 24 Hour							
Relinquished by: Ryan Monti		Date: 8/12/25	Time: 3:27pm	Received by: Colleen		Notes: Quote# HN-061825-M&S-MA					
Relinquished by: Ryan Monti		Date: 8/12/25	Time: 1700	Received by (Laboratory): JCS		Cooler Temp. 5-40C IR6					
Logged by (Laboratory): RL		Date: 8/13/25	Time: 08:10	Checked by (Laboratory):		QC Package: (Check Box Below)					
						Level II: Standard QC					
						Level III: Std QC + Raw Data					
						Level IV: SW846 CLP-Like					
						Other:					

Telephone : +1 616 399 6070



Environmental Division
Holland
Work Order Reference
HN2511317

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>
ALS copyright © 2024. All rights reserved.



ALS Holland Sample Receiving Checklist

Received by: BC

Date/Time: 8/13/25 0800

Carrier Name: QS

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

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

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

Chain of Custody present? Yes / No

COC signed when relinquished and received? Yes / No

COC agrees with sample labels? Yes / No

Samples in proper container/bottle? Yes / No

Sample containers intact? Yes / No

Sufficient sample volume for indicated test? Yes / No

All samples received within holding time? Yes / No

Container/Temp Blank temperature in compliance? Yes / No

Temperature(s) (°C): 5.6°C

Thermometer(s): IR6

Sample(s) received on ice? Yes / No

Matrix/Matrices: ice Soil

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 8/13/25 09:15

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

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

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

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

pH adjusted by: _____

Login Notes:

REPORT QUALIFIERS AND DEFINITIONS

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

Holland Laboratory 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: 11118_Whithorn

Work Order: HN2511317

Sample Name: 11118 SB01 (1-2)
Laboratory Code: HN2511317-001
Sample Matrix: SOIL/SOLID

Date Collected: 08/12/25
Date Received: 08/13/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		001-AC	2162233		3403230	Everett Chudy
EPA 6020B	EPA 3050B	001-AC	2165850	Weston Kotecki	3410824	Hunter Johnson
EPA 6020B	EPA 3050B	001-AC	2165850	Weston Kotecki	3413394	Hunter Johnson
EPA 7471B	Method	001-AC	2162145	Maxx Richey	3405106	Maxx Richey
EPA 8081B		001-AD			3456160	Bill Carey
EPA 8082A		001-AD			3456160	Bill Carey
EPA 8151A		001-AD			3456160	Bill Carey
EPA 8260D	EPA 5035A	001-AA	2157395	Jonathan Vazquez	3404198	John Garvale
EPA 8260D	EPA 5035A	001-AA	2157395	Jonathan Vazquez	3404740	Sean Bradfield
EPA 8260D	EPA 5035A	001-AA	2166541	Jonathan Vazquez	3411029	Ali Cook
EPA 8270E		001-AD			3456160	Bill Carey
EPA 9056A	EPA 9056A	001-AC	2163170	Sage Hansen	3405747	Katrina Grassel

Sample Name: 11118 SB02 (3-4)
Laboratory Code: HN2511317-002
Sample Matrix: SOIL/SOLID

Date Collected: 08/12/25
Date Received: 08/13/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		002-AC	2162233		3403230	Everett Chudy
EPA 6020B	EPA 3050B	002-AC	2165850	Weston Kotecki	3410824	Hunter Johnson
EPA 6020B	EPA 3050B	002-AC	2165850	Weston Kotecki	3413394	Hunter Johnson
EPA 7471B	Method	002-AC	2162145	Maxx Richey	3405106	Maxx Richey
EPA 8081B		002-AD			3456160	Bill Carey
EPA 8082A		002-AD			3456160	Bill Carey
EPA 8151A		002-AD			3456160	Bill Carey
EPA 8260D	EPA 5035A	002-AA	2157395	Jonathan Vazquez	3404198	John Garvale
EPA 8260D	EPA 5035A	002-AA	2157395	Jonathan Vazquez	3404740	Sean Bradfield
EPA 8260D	EPA 5035A	002-AA	2166541	Jonathan Vazquez	3411029	Ali Cook
EPA 8270E		002-AD			3456160	Bill Carey
EPA 9056A	EPA 9056A	002-AC	2163170	Sage Hansen	3405747	Katrina Grassel

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn

Work Order: HN2511317

Sample Name: 11118 SB03 (5-6)
Laboratory Code: HN2511317-003
Sample Matrix: SOIL/SOLID

Date Collected: 08/12/25
Date Received: 08/13/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		003-AC	2162233		3403230	Everett Chudy
EPA 6020B	EPA 3050B	003-AC	2165859	Weston Kotecki	3410807	Hunter Johnson
EPA 6020B	EPA 3050B	003-AC	2165859	Weston Kotecki	3413394	Hunter Johnson
EPA 7471B	Method	003-AC	2162145	Maxx Richey	3405106	Maxx Richey
EPA 8081B		003-AD			3456160	Bill Carey
EPA 8082A		003-AD			3456160	Bill Carey
EPA 8151A		003-AD			3456160	Bill Carey
EPA 8260D	EPA 5035A	003-AA	2157395	Jonathan Vazquez	3404740	Sean Bradfield
EPA 8260D	EPA 5035A	003-AA	2166541	Jonathan Vazquez	3425595	John Garvale
EPA 8260D	EPA 5035A	003-AA	2166541	Jonathan Vazquez	3431242	Nathan Jenkins
EPA 8270E		003-AD			3456160	Bill Carey
EPA 9056A	EPA 9056A	003-AC	2163170	Sage Hansen	3405747	Katrina Grassel

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:05
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB01 (1-2)	Lab ID: HN2511317-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	11.4		%	0.1	1	08/15/25 15:24	NA
Chloride	EPA 9056A	ND		mg/kg	11.4	1	08/15/25 18:03	08/15/25 15:56
Metals								
Arsenic	EPA 6020B	5.90		mg/kg	3.46	10	08/18/25 21:49	08/18/25 10:23
Barium	EPA 6020B	90.8		mg/kg	3.46	10	08/18/25 21:49	08/18/25 10:23
Cadmium	EPA 6020B	ND		mg/kg	1.38	10	08/18/25 21:49	08/18/25 10:23
Chromium	EPA 6020B	13.4		mg/kg	3.46	10	08/18/25 21:49	08/18/25 10:23
Copper	EPA 6020B	21.0		mg/kg	3.46	10	08/19/25 18:00	08/18/25 10:23
Lead	EPA 6020B	258		mg/kg	3.46	10	08/18/25 21:49	08/18/25 10:23
Selenium	EPA 6020B	ND		mg/kg	3.46	10	08/18/25 21:49	08/18/25 10:23
Silver	EPA 6020B	ND	V	mg/kg	3.46	10	08/18/25 21:49	08/18/25 10:23
Zinc	EPA 6020B	179		mg/kg	6.92	10	08/18/25 21:49	08/18/25 10:23
Mercury	EPA 7471B	0.0219		mg/kg	0.0200	1	08/18/25 11:04	08/15/25 14:35
Subcontracted Parameters								
Subcontract Analysis	EPA 8081B	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8082A	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8151A	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8270E	See attached.		-		1	09/02/25 15:15	NA
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:05
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB01 (1-2) **Lab ID: HN2511317-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	77.7	1	08/18/25 16:27	08/18/25 14:26
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	259	1	08/18/25 16:27	08/18/25 14:26
2-Hexanone	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Acetone	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
Benzene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Bromochloromethane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Bromodichloromethane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Bromoform	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Carbon disulfide	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Carbon tetrachloride	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Chlorobenzene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Chlorodibromomethane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
Chloroform	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	77.7	1	08/18/25 16:27	08/18/25 14:26
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Cyclohexane	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
Ethylbenzene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Isopropylbenzene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:05
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB01 (1-2) **Lab ID: HN2511317-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
m+p-Xylene	EPA 8260D	ND		µg/kg	77.7	1	08/18/25 16:27	08/18/25 14:26
Methyl acetate	EPA 8260D	ND		µg/kg	324	1	08/18/25 16:27	08/18/25 14:26
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Methylcyclohexane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	324	1	08/18/25 16:27	08/18/25 14:26
o-Xylene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Styrene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Toluene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Total Xylene	EPA 8260D	ND		µg/kg	116	1	08/18/25 16:27	08/18/25 14:26
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	94.7		%REC	80-120	1	08/18/25 16:27	08/18/25 14:26
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	93.2		%REC	80-120	1	08/15/25 10:22	08/13/25 11:17
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	92.8		%REC	80-120	1	08/18/25 16:27	08/18/25 14:26
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	101		%REC	80-120	1	08/18/25 16:27	08/18/25 14:26

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:12
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB02 (3-4)	Lab ID: HN2511317-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	5.4		%	0.1	1	08/15/25 15:24	NA
Chloride	EPA 9056A	ND		mg/kg	10.7	1	08/15/25 18:32	08/15/25 15:56
Metals								
Arsenic	EPA 6020B	3.40		mg/kg	2.92	10	08/18/25 21:51	08/18/25 10:23
Barium	EPA 6020B	6.33		mg/kg	2.92	10	08/18/25 21:51	08/18/25 10:23
Cadmium	EPA 6020B	ND		mg/kg	1.17	10	08/18/25 21:51	08/18/25 10:23
Chromium	EPA 6020B	4.03		mg/kg	2.92	10	08/18/25 21:51	08/18/25 10:23
Copper	EPA 6020B	5.47		mg/kg	2.92	10	08/19/25 18:02	08/18/25 10:23
Lead	EPA 6020B	2.99		mg/kg	2.92	10	08/18/25 21:51	08/18/25 10:23
Selenium	EPA 6020B	ND		mg/kg	2.92	10	08/18/25 21:51	08/18/25 10:23
Silver	EPA 6020B	ND	V	mg/kg	2.92	10	08/18/25 21:51	08/18/25 10:23
Zinc	EPA 6020B	14.5		mg/kg	5.83	10	08/18/25 21:51	08/18/25 10:23
Mercury	EPA 7471B	ND		mg/kg	0.0200	1	08/18/25 11:06	08/15/25 14:35
Subcontracted Parameters								
Subcontract Analysis	EPA 8081B	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8082A	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8151A	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8270E	See attached.		-		1	09/02/25 15:15	NA
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:12
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB02 (3-4) **Lab ID: HN2511317-002**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	68.2	1	08/18/25 16:27	08/18/25 14:26
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	227	1	08/18/25 16:27	08/18/25 14:26
2-Hexanone	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Acetone	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
Benzene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Bromochloromethane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Bromodichloromethane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Bromoform	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Carbon disulfide	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Carbon tetrachloride	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Chlorobenzene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Chlorodibromomethane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
Chloroform	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	68.2	1	08/18/25 16:27	08/18/25 14:26
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Cyclohexane	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
Ethylbenzene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Isopropylbenzene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:12
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB02 (3-4) **Lab ID: HN2511317-002**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
m+p-Xylene	EPA 8260D	ND		µg/kg	68.2	1	08/18/25 16:27	08/18/25 14:26
Methyl acetate	EPA 8260D	ND		µg/kg	284	1	08/18/25 16:27	08/18/25 14:26
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Methylcyclohexane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	284	1	08/18/25 16:27	08/18/25 14:26
o-Xylene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Styrene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Toluene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Total Xylene	EPA 8260D	ND		µg/kg	102	1	08/18/25 16:27	08/18/25 14:26
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	97.7		%REC	80-120	1	08/18/25 16:27	08/18/25 14:26
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	93.3		%REC	80-120	1	08/18/25 16:27	08/18/25 14:26
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	89.0		%REC	80-120	1	08/18/25 16:27	08/18/25 14:26
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	101		%REC	80-120	1	08/15/25 10:38	08/13/25 11:17

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:25
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB03 (5-6)

Lab ID: HN2511317-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	17.4		%	0.1	1	08/15/25 15:24	NA
Chloride	EPA 9056A	14.6		mg/kg	12.3	1	08/15/25 18:42	08/15/25 15:56
Metals								
Arsenic	EPA 6020B	ND		mg/kg	3.52	10	08/18/25 20:33	08/18/25 09:54
Barium	EPA 6020B	15.3	S	mg/kg	3.52	10	08/18/25 20:33	08/18/25 09:54
Cadmium	EPA 6020B	ND		mg/kg	1.41	10	08/18/25 20:33	08/18/25 09:54
Chromium	EPA 6020B	5.97	S	mg/kg	3.52	10	08/18/25 20:33	08/18/25 09:54
Copper	EPA 6020B	5.49		mg/kg	3.52	10	08/19/25 16:57	08/18/25 09:54
Lead	EPA 6020B	ND		mg/kg	3.52	10	08/18/25 20:33	08/18/25 09:54
Selenium	EPA 6020B	ND		mg/kg	3.52	10	08/18/25 20:33	08/18/25 09:54
Silver	EPA 6020B	ND		mg/kg	3.52	10	08/19/25 16:57	08/18/25 09:54
Zinc	EPA 6020B	19.0	S	mg/kg	7.03	10	08/18/25 20:33	08/18/25 09:54
Mercury	EPA 7471B	ND		mg/kg	0.0214	1	08/18/25 11:07	08/15/25 14:35
Subcontracted Parameters								
Subcontract Analysis	EPA 8081B	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8082A	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8151A	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8270E	See attached.		-		1	09/02/25 15:15	NA
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:25
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB03 (5-6) **Lab ID: HN2511317-003**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	87.7	1	08/23/25 03:47	08/18/25 14:26
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	292	1	08/23/25 03:47	08/18/25 14:26
2-Hexanone	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Acetone	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
Benzene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Bromochloromethane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Bromodichloromethane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Bromoform	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Carbon disulfide	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Carbon tetrachloride	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Chlorobenzene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Chlorodibromomethane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
Chloroform	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	87.7	1	08/23/25 03:47	08/18/25 14:26
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Cyclohexane	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
Ethylbenzene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Isopropylbenzene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:25
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB03 (5-6)	Lab ID: HN2511317-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
m+p-Xylene	EPA 8260D	ND		µg/kg	87.7	1	08/23/25 03:47	08/18/25 14:26
Methyl acetate	EPA 8260D	ND	S	µg/kg	365	1	08/23/25 03:47	08/18/25 14:26
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
Methyl chloride (Chloromethane)	EPA 8260D	ND	S	µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Methylcyclohexane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	365	1	08/23/25 03:47	08/18/25 14:26
o-Xylene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Styrene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Toluene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Total Xylene	EPA 8260D	ND		µg/kg	132	1	08/23/25 03:47	08/18/25 14:26
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
trans-1,3-Dichloropropylene	EPA 8260D	ND	S	µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	101		%REC	80-120	1	08/23/25 03:47	08/18/25 14:26
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	97.4		%REC	80-120	1	08/23/25 03:47	08/18/25 14:26
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	90.7		%REC	80-120	1	08/23/25 03:47	08/18/25 14:26
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	99.6		%REC	80-120	1	08/23/25 03:47	08/18/25 14:26



September 02, 2025

Service Request No:R2510154

Bill Carey
ALS Environmental - Holland
3352 128th Avenue
Holland, MI 49424

Laboratory Results for: 11118_Whithorn

Dear Bill,

Enclosed are the results of the sample(s) submitted to our laboratory August 20, 2025
For your reference, these analyses have been assigned our service request number **R2510154**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7476. You may also contact me via email at Chris.Leavy@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Christopher Leavy
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Received: 08/20/2025

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:

Three soil samples were received for analysis at ALS Environmental on 08/20/2025. 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.

Semivolatiles by GC/MS:

Method 8270E: The Method Reporting Limit (MRL) was elevated due to less than optimal sample mass (15g) used in the microwave preparation process. The nature of the sample necessitated using less mass of sample to avoid overheating. Overheating causes the extraction solvent to vent out of the vessel and may cause damage to the microwave vessels.

Semivolatile GC:

Method 8081B, 08/25/2025: The control limits were exceeded for analytes in the Continuing Calibration Verification (CCV). The QC failure was most likely due to the composition of the sample(s) immediately preceding the failing CCV. In order to protect the integrity of the instrument, no further corrective action was taken. Results should be considered estimated.

Method 8082A, 08/25/2025: The control limit was exceeded for one or more surrogates in the Continuing Calibration Verification (CCV). The surrogates were within acceptance limits for the associated field samples. The data quality was not significantly affected and no further corrective action was taken.

General Chemistry:

No significant anomalies were noted with this analysis.

Total solid results provided from parent lab.

Report revised to report to MRL on 9/2/2025.

Approved by 

Date 08/28/2025



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: 11118 SB01 (1-2)	Lab ID: R2510154-001
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Analyte	Results	Flag	MDL	MRL	Units	Method
4,4'-DDE	16			2.8	ug/Kg	8081B
4,4'-DDT	4.2			2.8	ug/Kg	8081B
Total Solids	88.6				Percent	ALS SOP

CLIENT ID: 11118 SB02 (3-4)	Lab ID: R2510154-002
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	94.6				Percent	ALS SOP

CLIENT ID: 11118 SB03 (5-6)	Lab ID: R2510154-003
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Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	82.6				Percent	ALS SOP



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: ALS Environmental - US
Project: 11118_Whithorn

Service Request:R2510154

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R2510154-001	11118 SB01 (1-2)	8/12/2025	1405
R2510154-002	11118 SB02 (3-4)	8/12/2025	1412
R2510154-003	11118 SB03 (5-6)	8/12/2025	1425

ALS Group USA, Corp.

3352 128th Ave Holland Michigan 49424 United States
T+1 616 399 6070 | F



right solutions.
right partner.

Subcontract Chain of Custody

SAMPLING STATE:

COC ID: HN2511317

Subcontract To:

Rochester - Environmental TEL: +1 585 288 5380
1565 Jefferson Road, Building 300, Suite 360 FAX:
Rochester New York 14623

Due Date: 08/22/2025

Analysis Report Format: ALS Standard – Level II

Electronic Data Deliverable:

Customer Information		Project Information		Parameter/Method Request for Analysis					
Purchase Order		Project Name	11118_Whithorn	A	EPA 8081B-3546-S (INT SUB)				
Work Order	HN2511317			B	EPA 8082A-3546-S (INT SUB)				
Company Name	Holland - Environmental	Bill To Company	Holland - Environmental	C	EPA 8151A-S (INT SUB)				
Send Report To	Bill Carey	Inv Attn	Accounts Payable	D	EPA 8270E-TCL-3546-S (INT SUB)				
Address	3352 128th Ave	Address	3352 128th Ave	E					
				F					
City/State/Zip	Holland Michigan 49424	City/State/Zip	Holland Michigan 49424	G					
Phone	+1 616 399 6070	Phone	+1 616 399 6070	H					
Fax		Fax		I					
Email Address	bill.carey@alsglobal.com			J					

ALS Sample ID	Client Sample ID	Matrix	Collection Date	Bottle	A	B	C	D	E	F	G	H	I	J
HN2511317-001	11118 SB01 (1-2)	Soil/Solid	08/12/2025 14:05	001-AD	x	x	x	x						
HN2511317-002	11118 SB02 (3-4)	Soil/Solid	08/12/2025 14:12	002-AD	x	x	x	x						
HN2511317-003	11118 SB03 (5-6)	Soil/Solid	08/12/2025 14:25	003-AD	x	x	x	x						

Relinquished by	Date Time	Received by	Date Time	Cooler ID's _____ _____ _____
Relinquished by	Date Time	Received by	Date Time	
Sampled by				

R2510154 5

ALS Environmental - Holland
11118_Whithorn





Cooler Receipt and Preservation Check Form

R2510154

5

ALS Environmental - Holland
11118 Whithorn

Project/Client _____ Folder Number _____

Cooler received on 8/20/25 by: RMCOURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y <u>(N)</u>
2	Custody papers properly completed (ink, signed)?	<u>(Y)</u> N
3	Did all bottles arrive in good condition (unbroken)?	<u>(Y)</u> N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	<u>(Y)</u> N

5a	Did VOA vials have sig* bubbles?	Y N <u>(NA)</u>
5b	Sig* bubbles: Alk? Y N <u>(NA)</u> Sulfide? Y N <u>(NA)</u>	
6	Where did the bottles originate?	ALS/ROC <u>(CLIENT)</u>
7	Soil VOA received as: Bulk Encore 5035set	<u>(CNA)</u>

8. Temperature Readings Date: 8/20/25 Time: 10:01 ID: IR#12 (IR#11) From: Temp Blank (Sample Bottle)

Temp (°C)	<u>4.2</u>	<u>4.5</u>	<u>5.5</u>				
Within 0-6°C?	<u>(Y)</u> N	<u>(Y)</u> N	<u>(Y)</u> N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: SMO by RM on 8/20 at 12:16

5035 samples placed in storage location: _____ by _____ on _____ at _____ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check**: Date: 8/20/25 Time: 15:10 by: LM9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? (YES) NO10. Did all bottle labels and tags agree with custody papers? (YES) NO11. Were correct containers used for the tests indicated? (YES) NO12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO (N/A)13. Were dissolved metals filtered in the field? YES NO (N/A)14. Air Samples: Cassettes / Tubes Intact Y / N with MS Y / N Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2		HNO ₃								
≤2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**						

**VOAs and 1664 Not to be tested before analysis.
Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).Bottle lot numbers: 062325-15R

Explain all Discrepancies/ Other Comments: _____

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: LM

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Accreditations¹



NELAP States
Florida ID # E87674
New Hampshire ID # 2941
New York ID # 10145
Pennsylvania ID# 68-786
Texas ID#T104704581
Virginia #460167

Non-NELAP States
Connecticut ID #PH0556
Delaware Approved
Maine ID #NY01587
North Carolina #36701
North Carolina #676
Rhode Island LAO00333

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory. To verify NH accredited analytes, go to <https://www4.des.state.nh.us/CertifiedLabs/Certified-Method.aspx>.

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: ALS Environmental - US
Project: 11118_Whithorn

Service Request: R2510154

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
8270E	Soil	1-Methylnaphthalene
8270E	Soil	Methylphenols, Total
ALS SOP	Soil	Total Solids

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: ALS Environmental - US
Project: 11118_Whithorn/

Service Request: R2510154

Sample Name: 11118 SB01 (1-2)
Lab Code: R2510154-001
Sample Matrix: Soil

Date Collected: 08/12/25
Date Received: 08/20/25

Analysis Method	Extracted/Digested By	Analyzed By
8081B	JVANHEYNINGEN	AFELSER
8082A	JVANHEYNINGEN	AFELSER
8151A	JVANHEYNINGEN	AFELSER
8270E	JVANHEYNINGEN	AMOSSES
ALS SOP		CKUTZER

Sample Name: 11118 SB02 (3-4)
Lab Code: R2510154-002
Sample Matrix: Soil

Date Collected: 08/12/25
Date Received: 08/20/25

Analysis Method	Extracted/Digested By	Analyzed By
8081B	JVANHEYNINGEN	AFELSER
8082A	JVANHEYNINGEN	AFELSER
8151A	JVANHEYNINGEN	AFELSER
8270E	JVANHEYNINGEN	AMOSSES
ALS SOP		CKUTZER

Sample Name: 11118 SB03 (5-6)
Lab Code: R2510154-003
Sample Matrix: Soil

Date Collected: 08/12/25
Date Received: 08/20/25

Analysis Method	Extracted/Digested By	Analyzed By
8081B	JVANHEYNINGEN	AFELSER
8082A	JVANHEYNINGEN	AFELSER
8151A	JVANHEYNINGEN	AFELSER
8270E	JVANHEYNINGEN	AMOSSES
ALS SOP		CKUTZER



PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

INORGANIC

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C or 6010D	3005A/3010A
6020A or 6020B	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-N-2016 Amenable and Residual Cyanide	SM 4500-CN-G and SM 4500-CN-B,C-2016
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C or 6010D	3050B
6020A or 6020B	3050B
6010C or 6010D TCLP (1311) extract	3005A/3010A
6010C or 6010D SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	

ORGANIC

Preparation Methods for Organic methods are listed in the header of the Results pages.

Regarding "Bulk/5035A":

For soil/solid samples submitted in soil jars for Volatiles analysis, the prep method is listed as "Bulk/5035A". The lab follows the closed-system EPA 5035A protocols once the sample is transferred to a sealed vial, but collection in bulk in soil jars does not follow the collection protocols listed in EPA 5035A. In accordance with the NYSDOH technical notice of October 2012, all results or reporting limits <200 ug/kg are to be considered estimated due to potential low bias.



Sample Results

ALS Environmental—Rochester Laboratory

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Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:05
Date Received: 08/20/25 09:30

Sample Name: 11118 SB01 (1-2)
Lab Code: R2510154-001

Units:
Basis: Dry

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Prep Method: EPA 3546

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Methylphenols, Total	U	-	1	08/21/25 17:23	8/21/25	
1,2,4,5-Tetrachlorobenzene	370 U	370	1	08/21/25 17:23	8/21/25	
1-Methylnaphthalene	370 U	370	1	08/21/25 17:23	8/21/25	
2-Methylnaphthalene	370 U	370	1	08/21/25 17:23	8/21/25	
Acenaphthene	370 U	370	1	08/21/25 17:23	8/21/25	
Acenaphthylene	370 U	370	1	08/21/25 17:23	8/21/25	
Anthracene	370 U	370	1	08/21/25 17:23	8/21/25	
Benz(a)anthracene	370 U	370	1	08/21/25 17:23	8/21/25	
Benzo(a)pyrene	370 U	370	1	08/21/25 17:23	8/21/25	
Benzo(b)fluoranthene	370 U	370	1	08/21/25 17:23	8/21/25	
Benzo(g,h,i)perylene	370 U	370	1	08/21/25 17:23	8/21/25	
1,4-Dichlorobenzene	370 U	370	1	08/21/25 17:23	8/21/25	
Benzo(k)fluoranthene	370 U	370	1	08/21/25 17:23	8/21/25	
Biphenyl	370 U	370	1	08/21/25 17:23	8/21/25	
Chrysene	370 U	370	1	08/21/25 17:23	8/21/25	
1,4-Dioxane	75 U	75	1	08/21/25 17:23	8/21/25	
Dibenz(a,h)anthracene	370 U	370	1	08/21/25 17:23	8/21/25	
Dibenzofuran	370 U	370	1	08/21/25 17:23	8/21/25	
Fluoranthene	370 U	370	1	08/21/25 17:23	8/21/25	
Fluorene	370 U	370	1	08/21/25 17:23	8/21/25	
Indeno(1,2,3-cd)pyrene	370 U	370	1	08/21/25 17:23	8/21/25	
Naphthalene	370 U	370	1	08/21/25 17:23	8/21/25	
Phenanthrene	370 U	370	1	08/21/25 17:23	8/21/25	
Pyrene	370 U	370	1	08/21/25 17:23	8/21/25	
2,3,4,6-Tetrachlorophenol	370 U	370	1	08/21/25 17:23	8/21/25	
2,4,5-Trichlorophenol	370 U	370	1	08/21/25 17:23	8/21/25	
2,4,6-Trichlorophenol	370 U	370	1	08/21/25 17:23	8/21/25	
2,4-Dichlorophenol	370 U	370	1	08/21/25 17:23	8/21/25	
2,4-Dimethylphenol	370 U	370	1	08/21/25 17:23	8/21/25	
2,4-Dinitrophenol	1900 U	1900	1	08/21/25 17:23	8/21/25	
2,4-Dinitrotoluene	370 U	370	1	08/21/25 17:23	8/21/25	
2,6-Dinitrotoluene	370 U	370	1	08/21/25 17:23	8/21/25	
2-Chloronaphthalene	370 U	370	1	08/21/25 17:23	8/21/25	
2-Chlorophenol	370 U	370	1	08/21/25 17:23	8/21/25	
2-Methylphenol	370 U	370	1	08/21/25 17:23	8/21/25	
2-Nitroaniline	1900 U	1900	1	08/21/25 17:23	8/21/25	
2-Nitrophenol	370 U	370	1	08/21/25 17:23	8/21/25	
3,3'-Dichlorobenzidine	370 U	370	1	08/21/25 17:23	8/21/25	
3- and 4-Methylphenol Coelution	370 U	370	1	08/21/25 17:23	8/21/25	
3-Nitroaniline	1900 U	1900	1	08/21/25 17:23	8/21/25	
4,6-Dinitro-2-methylphenol	1900 U	1900	1	08/21/25 17:23	8/21/25	
4-Bromophenyl Phenyl Ether	370 U	370	1	08/21/25 17:23	8/21/25	
4-Chloro-3-methylphenol	370 U	370	1	08/21/25 17:23	8/21/25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:05
Date Received: 08/20/25 09:30

Sample Name: 11118 SB01 (1-2)
Lab Code: R2510154-001

Units:
Basis: Dry

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Prep Method: EPA 3546

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4-Chloroaniline	370 U	370	1	08/21/25 17:23	8/21/25	
4-Chlorophenyl Phenyl Ether	370 U	370	1	08/21/25 17:23	8/21/25	
4-Nitroaniline	1900 U	1900	1	08/21/25 17:23	8/21/25	
4-Nitrophenol	1900 U	1900	1	08/21/25 17:23	8/21/25	
Acetophenone	370 U	370	1	08/21/25 17:23	8/21/25	
Atrazine	370 U	370	1	08/21/25 17:23	8/21/25	
Benzaldehyde	1900 U	1900	1	08/21/25 17:23	8/21/25	
Benzoic Acid	1900 U	1900	1	08/21/25 17:23	8/21/25	
Bis(1-chloroisopropyl) Ether	370 U	370	1	08/21/25 17:23	8/21/25	
Bis(2-chloroethoxy)methane	370 U	370	1	08/21/25 17:23	8/21/25	
Bis(2-chloroethyl) Ether	370 U	370	1	08/21/25 17:23	8/21/25	
Bis(2-ethylhexyl) Phthalate	560 U	560	1	08/21/25 17:23	8/21/25	
Butyl Benzyl Phthalate	370 U	370	1	08/21/25 17:23	8/21/25	
Caprolactam	370 U	370	1	08/21/25 17:23	8/21/25	
Carbazole	370 U	370	1	08/21/25 17:23	8/21/25	
Di-n-butyl Phthalate	370 U	370	1	08/21/25 17:23	8/21/25	
Di-n-octyl Phthalate	370 U	370	1	08/21/25 17:23	8/21/25	
Diethyl Phthalate	370 U	370	1	08/21/25 17:23	8/21/25	
Dimethyl Phthalate	370 U	370	1	08/21/25 17:23	8/21/25	
Hexachlorobenzene	370 U	370	1	08/21/25 17:23	8/21/25	
Hexachlorobutadiene	370 U	370	1	08/21/25 17:23	8/21/25	
Hexachlorocyclopentadiene	370 U	370	1	08/21/25 17:23	8/21/25	
Hexachloroethane	370 U	370	1	08/21/25 17:23	8/21/25	
Isophorone	370 U	370	1	08/21/25 17:23	8/21/25	
N-Nitrosodi-n-propylamine	370 U	370	1	08/21/25 17:23	8/21/25	
N-Nitrosodiphenylamine	370 U	370	1	08/21/25 17:23	8/21/25	
Nitrobenzene	370 U	370	1	08/21/25 17:23	8/21/25	
Pentachlorophenol (PCP)	1900 U	1900	1	08/21/25 17:23	8/21/25	
Phenol	370 U	370	1	08/21/25 17:23	8/21/25	
Pyridine	1900 U	1900	1	08/21/25 17:23	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	65	18 - 104	08/21/25 17:23	
Nitrobenzene-d5	62	12 - 98	08/21/25 17:23	
p-Terphenyl-d14	79	26 - 134	08/21/25 17:23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:12
Date Received: 08/20/25 09:30

Sample Name: 11118 SB02 (3-4)
Lab Code: R2510154-002

Units:
Basis: Dry

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Prep Method: EPA 3546

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Methylphenols, Total	U	-	1	08/21/25 17:47	8/21/25	
1-Methylnaphthalene	350 U	350	1	08/21/25 17:47	8/21/25	
1,2,4,5-Tetrachlorobenzene	350 U	350	1	08/21/25 17:47	8/21/25	
2-Methylnaphthalene	350 U	350	1	08/21/25 17:47	8/21/25	
Acenaphthene	350 U	350	1	08/21/25 17:47	8/21/25	
Acenaphthylene	350 U	350	1	08/21/25 17:47	8/21/25	
Anthracene	350 U	350	1	08/21/25 17:47	8/21/25	
Benz(a)anthracene	350 U	350	1	08/21/25 17:47	8/21/25	
Benzo(a)pyrene	350 U	350	1	08/21/25 17:47	8/21/25	
Benzo(b)fluoranthene	350 U	350	1	08/21/25 17:47	8/21/25	
Benzo(g,h,i)perylene	350 U	350	1	08/21/25 17:47	8/21/25	
Benzo(k)fluoranthene	350 U	350	1	08/21/25 17:47	8/21/25	
1,4-Dichlorobenzene	350 U	350	1	08/21/25 17:47	8/21/25	
Biphenyl	350 U	350	1	08/21/25 17:47	8/21/25	
Chrysene	350 U	350	1	08/21/25 17:47	8/21/25	
Dibenz(a,h)anthracene	350 U	350	1	08/21/25 17:47	8/21/25	
1,4-Dioxane	70 U	70	1	08/21/25 17:47	8/21/25	
Dibenzofuran	350 U	350	1	08/21/25 17:47	8/21/25	
Fluoranthene	350 U	350	1	08/21/25 17:47	8/21/25	
Fluorene	350 U	350	1	08/21/25 17:47	8/21/25	
Indeno(1,2,3-cd)pyrene	350 U	350	1	08/21/25 17:47	8/21/25	
Naphthalene	350 U	350	1	08/21/25 17:47	8/21/25	
Phenanthrene	350 U	350	1	08/21/25 17:47	8/21/25	
Pyrene	350 U	350	1	08/21/25 17:47	8/21/25	
2,3,4,6-Tetrachlorophenol	350 U	350	1	08/21/25 17:47	8/21/25	
2,4,5-Trichlorophenol	350 U	350	1	08/21/25 17:47	8/21/25	
2,4,6-Trichlorophenol	350 U	350	1	08/21/25 17:47	8/21/25	
2,4-Dichlorophenol	350 U	350	1	08/21/25 17:47	8/21/25	
2,4-Dimethylphenol	350 U	350	1	08/21/25 17:47	8/21/25	
2,4-Dinitrophenol	1800 U	1800	1	08/21/25 17:47	8/21/25	
2,4-Dinitrotoluene	350 U	350	1	08/21/25 17:47	8/21/25	
2,6-Dinitrotoluene	350 U	350	1	08/21/25 17:47	8/21/25	
2-Chloronaphthalene	350 U	350	1	08/21/25 17:47	8/21/25	
2-Chlorophenol	350 U	350	1	08/21/25 17:47	8/21/25	
2-Methylphenol	350 U	350	1	08/21/25 17:47	8/21/25	
2-Nitroaniline	1800 U	1800	1	08/21/25 17:47	8/21/25	
2-Nitrophenol	350 U	350	1	08/21/25 17:47	8/21/25	
3,3'-Dichlorobenzidine	350 U	350	1	08/21/25 17:47	8/21/25	
3- and 4-Methylphenol Coelution	350 U	350	1	08/21/25 17:47	8/21/25	
3-Nitroaniline	1800 U	1800	1	08/21/25 17:47	8/21/25	
4,6-Dinitro-2-methylphenol	1800 U	1800	1	08/21/25 17:47	8/21/25	
4-Bromophenyl Phenyl Ether	350 U	350	1	08/21/25 17:47	8/21/25	
4-Chloro-3-methylphenol	350 U	350	1	08/21/25 17:47	8/21/25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:12
Date Received: 08/20/25 09:30

Sample Name: 11118 SB02 (3-4)
Lab Code: R2510154-002

Units:
Basis: Dry

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Prep Method: EPA 3546

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4-Chloroaniline	350 U	350	1	08/21/25 17:47	8/21/25	
4-Chlorophenyl Phenyl Ether	350 U	350	1	08/21/25 17:47	8/21/25	
4-Nitroaniline	1800 U	1800	1	08/21/25 17:47	8/21/25	
4-Nitrophenol	1800 U	1800	1	08/21/25 17:47	8/21/25	
Acetophenone	350 U	350	1	08/21/25 17:47	8/21/25	
Atrazine	350 U	350	1	08/21/25 17:47	8/21/25	
Benzaldehyde	1800 U	1800	1	08/21/25 17:47	8/21/25	
Benzoic Acid	1800 U	1800	1	08/21/25 17:47	8/21/25	
Bis(1-chloroisopropyl) Ether	350 U	350	1	08/21/25 17:47	8/21/25	
Bis(2-chloroethoxy)methane	350 U	350	1	08/21/25 17:47	8/21/25	
Bis(2-chloroethyl) Ether	350 U	350	1	08/21/25 17:47	8/21/25	
Bis(2-ethylhexyl) Phthalate	520 U	520	1	08/21/25 17:47	8/21/25	
Butyl Benzyl Phthalate	350 U	350	1	08/21/25 17:47	8/21/25	
Caprolactam	350 U	350	1	08/21/25 17:47	8/21/25	
Carbazole	350 U	350	1	08/21/25 17:47	8/21/25	
Di-n-butyl Phthalate	350 U	350	1	08/21/25 17:47	8/21/25	
Di-n-octyl Phthalate	350 U	350	1	08/21/25 17:47	8/21/25	
Diethyl Phthalate	350 U	350	1	08/21/25 17:47	8/21/25	
Dimethyl Phthalate	350 U	350	1	08/21/25 17:47	8/21/25	
Hexachlorobenzene	350 U	350	1	08/21/25 17:47	8/21/25	
Hexachlorobutadiene	350 U	350	1	08/21/25 17:47	8/21/25	
Hexachlorocyclopentadiene	350 U	350	1	08/21/25 17:47	8/21/25	
Hexachloroethane	350 U	350	1	08/21/25 17:47	8/21/25	
Isophorone	350 U	350	1	08/21/25 17:47	8/21/25	
N-Nitrosodi-n-propylamine	350 U	350	1	08/21/25 17:47	8/21/25	
N-Nitrosodiphenylamine	350 U	350	1	08/21/25 17:47	8/21/25	
Nitrobenzene	350 U	350	1	08/21/25 17:47	8/21/25	
Pentachlorophenol (PCP)	1800 U	1800	1	08/21/25 17:47	8/21/25	
Phenol	350 U	350	1	08/21/25 17:47	8/21/25	
Pyridine	1800 U	1800	1	08/21/25 17:47	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	58	18 - 104	08/21/25 17:47	
Nitrobenzene-d5	54	12 - 98	08/21/25 17:47	
p-Terphenyl-d14	77	26 - 134	08/21/25 17:47	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:25
Date Received: 08/20/25 09:30

Sample Name: 11118 SB03 (5-6)
Lab Code: R2510154-003

Units:
Basis: Dry

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Prep Method: EPA 3546

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Methylphenols, Total	U	-	1	08/21/25 18:11	8/21/25	
1,2,4,5-Tetrachlorobenzene	600 U	600	1	08/21/25 18:11	8/21/25	
1-Methylnaphthalene	600 U	600	1	08/21/25 18:11	8/21/25	
2-Methylnaphthalene	600 U	600	1	08/21/25 18:11	8/21/25	
Acenaphthene	600 U	600	1	08/21/25 18:11	8/21/25	
Acenaphthylene	600 U	600	1	08/21/25 18:11	8/21/25	
Anthracene	600 U	600	1	08/21/25 18:11	8/21/25	
Benz(a)anthracene	600 U	600	1	08/21/25 18:11	8/21/25	
Benzo(a)pyrene	600 U	600	1	08/21/25 18:11	8/21/25	
Benzo(b)fluoranthene	600 U	600	1	08/21/25 18:11	8/21/25	
Benzo(g,h,i)perylene	600 U	600	1	08/21/25 18:11	8/21/25	
1,4-Dichlorobenzene	600 U	600	1	08/21/25 18:11	8/21/25	
Benzo(k)fluoranthene	600 U	600	1	08/21/25 18:11	8/21/25	
Biphenyl	600 U	600	1	08/21/25 18:11	8/21/25	
Chrysene	600 U	600	1	08/21/25 18:11	8/21/25	
1,4-Dioxane	120 U	120	1	08/21/25 18:11	8/21/25	
Dibenz(a,h)anthracene	600 U	600	1	08/21/25 18:11	8/21/25	
Dibenzofuran	600 U	600	1	08/21/25 18:11	8/21/25	
Fluoranthene	600 U	600	1	08/21/25 18:11	8/21/25	
Fluorene	600 U	600	1	08/21/25 18:11	8/21/25	
Indeno(1,2,3-cd)pyrene	600 U	600	1	08/21/25 18:11	8/21/25	
Naphthalene	600 U	600	1	08/21/25 18:11	8/21/25	
Phenanthrene	600 U	600	1	08/21/25 18:11	8/21/25	
Pyrene	600 U	600	1	08/21/25 18:11	8/21/25	
2,3,4,6-Tetrachlorophenol	600 U	600	1	08/21/25 18:11	8/21/25	
2,4,5-Trichlorophenol	600 U	600	1	08/21/25 18:11	8/21/25	
2,4,6-Trichlorophenol	600 U	600	1	08/21/25 18:11	8/21/25	
2,4-Dichlorophenol	600 U	600	1	08/21/25 18:11	8/21/25	
2,4-Dimethylphenol	600 U	600	1	08/21/25 18:11	8/21/25	
2,4-Dinitrophenol	3100 U	3100	1	08/21/25 18:11	8/21/25	
2,4-Dinitrotoluene	600 U	600	1	08/21/25 18:11	8/21/25	
2,6-Dinitrotoluene	600 U	600	1	08/21/25 18:11	8/21/25	
2-Chloronaphthalene	600 U	600	1	08/21/25 18:11	8/21/25	
2-Chlorophenol	600 U	600	1	08/21/25 18:11	8/21/25	
2-Methylphenol	600 U	600	1	08/21/25 18:11	8/21/25	
2-Nitroaniline	3100 U	3100	1	08/21/25 18:11	8/21/25	
2-Nitrophenol	600 U	600	1	08/21/25 18:11	8/21/25	
3,3'-Dichlorobenzidine	600 U	600	1	08/21/25 18:11	8/21/25	
3- and 4-Methylphenol Coelution	600 U	600	1	08/21/25 18:11	8/21/25	
3-Nitroaniline	3100 U	3100	1	08/21/25 18:11	8/21/25	
4,6-Dinitro-2-methylphenol	3100 U	3100	1	08/21/25 18:11	8/21/25	
4-Bromophenyl Phenyl Ether	600 U	600	1	08/21/25 18:11	8/21/25	
4-Chloro-3-methylphenol	600 U	600	1	08/21/25 18:11	8/21/25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:25
Date Received: 08/20/25 09:30

Sample Name: 11118 SB03 (5-6)
Lab Code: R2510154-003

Units:
Basis: Dry

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Prep Method: EPA 3546

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4-Chloroaniline	600 U	600	1	08/21/25 18:11	8/21/25	
4-Chlorophenyl Phenyl Ether	600 U	600	1	08/21/25 18:11	8/21/25	
4-Nitroaniline	3100 U	3100	1	08/21/25 18:11	8/21/25	
4-Nitrophenol	3100 U	3100	1	08/21/25 18:11	8/21/25	
Acetophenone	600 U	600	1	08/21/25 18:11	8/21/25	
Atrazine	600 U	600	1	08/21/25 18:11	8/21/25	
Benzaldehyde	3100 U	3100	1	08/21/25 18:11	8/21/25	
Benzoic Acid	3100 U	3100	1	08/21/25 18:11	8/21/25	
Bis(1-chloroisopropyl) Ether	600 U	600	1	08/21/25 18:11	8/21/25	
Bis(2-chloroethoxy)methane	600 U	600	1	08/21/25 18:11	8/21/25	
Bis(2-chloroethyl) Ether	600 U	600	1	08/21/25 18:11	8/21/25	
Bis(2-ethylhexyl) Phthalate	900 U	900	1	08/21/25 18:11	8/21/25	
Butyl Benzyl Phthalate	600 U	600	1	08/21/25 18:11	8/21/25	
Caprolactam	600 U	600	1	08/21/25 18:11	8/21/25	
Carbazole	600 U	600	1	08/21/25 18:11	8/21/25	
Di-n-butyl Phthalate	600 U	600	1	08/21/25 18:11	8/21/25	
Di-n-octyl Phthalate	600 U	600	1	08/21/25 18:11	8/21/25	
Diethyl Phthalate	600 U	600	1	08/21/25 18:11	8/21/25	
Dimethyl Phthalate	600 U	600	1	08/21/25 18:11	8/21/25	
Hexachlorobenzene	600 U	600	1	08/21/25 18:11	8/21/25	
Hexachlorobutadiene	600 U	600	1	08/21/25 18:11	8/21/25	
Hexachlorocyclopentadiene	600 U	600	1	08/21/25 18:11	8/21/25	
Hexachloroethane	600 U	600	1	08/21/25 18:11	8/21/25	
Isophorone	600 U	600	1	08/21/25 18:11	8/21/25	
N-Nitrosodi-n-propylamine	600 U	600	1	08/21/25 18:11	8/21/25	
N-Nitrosodiphenylamine	600 U	600	1	08/21/25 18:11	8/21/25	
Nitrobenzene	600 U	600	1	08/21/25 18:11	8/21/25	
Pentachlorophenol (PCP)	3100 U	3100	1	08/21/25 18:11	8/21/25	
Phenol	600 U	600	1	08/21/25 18:11	8/21/25	
Pyridine	3100 U	3100	1	08/21/25 18:11	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	64	18 - 104	08/21/25 18:11	
Nitrobenzene-d5	60	12 - 98	08/21/25 18:11	
p-Terphenyl-d14	83	26 - 134	08/21/25 18:11	



Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory

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ALS Group USA, Corp.
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Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:05
Date Received: 08/20/25 09:30

Sample Name: 11118 SB01 (1-2)
Lab Code: R2510154-001

Units: ug/Kg
Basis: Dry

Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

Analysis Method: 8081B
Prep Method: EPA 3546

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
4,4'-DDE	16	2.8	1	08/25/25 15:21	8/21/25	
4,4'-DDT	4.2	2.8	1	08/25/25 15:21	8/21/25	
Aldrin	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
Chlordane	14 U	14	1	08/25/25 15:21	8/21/25	
Dieldrin	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
Endosulfan I	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
Endosulfan II	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
Endosulfan Sulfate	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
Endrin	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
Endrin Aldehyde	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
Endrin Ketone	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
Heptachlor	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
Heptachlor Epoxide	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
Methoxychlor	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
Toxaphene	55 U	55	1	08/25/25 15:21	8/21/25	
alpha-BHC	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
alpha-Chlordane	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
beta-BHC	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
delta-BHC	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
gamma-BHC (Lindane)	2.8 U	2.8	1	08/25/25 15:21	8/21/25	
gamma-Chlordane	2.8 U	2.8	1	08/25/25 15:21	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	64	10 - 159	08/25/25 15:21	
Tetrachloro-m-xylene	55	10 - 132	08/25/25 15:21	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:12
Date Received: 08/20/25 09:30

Sample Name: 11118 SB02 (3-4)
Lab Code: R2510154-002

Units: ug/Kg
Basis: Dry

Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

Analysis Method: 8081B
Prep Method: EPA 3546

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
4,4'-DDE	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
4,4'-DDT	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
Aldrin	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
Chlordane	13 U	13	1	08/26/25 11:04	8/21/25	
Dieldrin	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
Endosulfan I	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
Endosulfan II	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
Endosulfan Sulfate	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
Endrin	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
Endrin Aldehyde	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
Endrin Ketone	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
Heptachlor	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
Heptachlor Epoxide	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
Methoxychlor	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
Toxaphene	51 U	51	1	08/26/25 11:04	8/21/25	
alpha-BHC	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
alpha-Chlordane	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
beta-BHC	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
delta-BHC	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
gamma-BHC (Lindane)	2.6 U	2.6	1	08/26/25 11:04	8/21/25	
gamma-Chlordane	2.6 U	2.6	1	08/26/25 11:04	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	79	10 - 159	08/26/25 11:04	
Tetrachloro-m-xylene	54	10 - 132	08/26/25 11:04	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:25
Date Received: 08/20/25 09:30

Sample Name: 11118 SB03 (5-6)
Lab Code: R2510154-003

Units: ug/Kg
Basis: Dry

Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

Analysis Method: 8081B
Prep Method: EPA 3546

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
4,4'-DDE	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
4,4'-DDT	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
Aldrin	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
Chlordane	29 U	29	1	08/26/25 11:21	8/21/25	
Dieldrin	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
Endosulfan I	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
Endosulfan II	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
Endosulfan Sulfate	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
Endrin	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
Endrin Aldehyde	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
Endrin Ketone	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
Heptachlor	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
Heptachlor Epoxide	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
Methoxychlor	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
Toxaphene	120 U	120	1	08/26/25 11:21	8/21/25	
alpha-BHC	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
alpha-Chlordane	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
beta-BHC	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
delta-BHC	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
gamma-BHC (Lindane)	6.0 U	6.0	1	08/26/25 11:21	8/21/25	
gamma-Chlordane	6.0 U	6.0	1	08/26/25 11:21	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	71	10 - 159	08/26/25 11:21	
Tetrachloro-m-xylene	52	10 - 132	08/26/25 11:21	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:05
Date Received: 08/20/25 09:30

Sample Name: 11118 SB01 (1-2)
Lab Code: R2510154-001

Units: ug/Kg
Basis: Dry

Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

Analysis Method: 8082A
Prep Method: EPA 3546

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	55 U	55	1	08/25/25 02:18	8/21/25	
Aroclor 1221	110 U	110	1	08/25/25 02:18	8/21/25	
Aroclor 1232	55 U	55	1	08/25/25 02:18	8/21/25	
Aroclor 1242	55 U	55	1	08/25/25 02:18	8/21/25	
Aroclor 1248	55 U	55	1	08/25/25 02:18	8/21/25	
Aroclor 1254	55 U	55	1	08/25/25 02:18	8/21/25	
Aroclor 1260	55 U	55	1	08/25/25 02:18	8/21/25	
Aroclor 1262	55 U	55	1	08/25/25 02:18	8/21/25	
Aroclor 1268	55 U	55	1	08/25/25 02:18	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	70	10 - 138	08/25/25 02:18	
Tetrachloro-m-xylene	53	11 - 122	08/25/25 02:18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:12
Date Received: 08/20/25 09:30

Sample Name: 11118 SB02 (3-4)
Lab Code: R2510154-002

Units: ug/Kg
Basis: Dry

Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

Analysis Method: 8082A
Prep Method: EPA 3546

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	51 U	51	1	08/25/25 02:32	8/21/25	
Aroclor 1221	100 U	100	1	08/25/25 02:32	8/21/25	
Aroclor 1232	51 U	51	1	08/25/25 02:32	8/21/25	
Aroclor 1242	51 U	51	1	08/25/25 02:32	8/21/25	
Aroclor 1248	51 U	51	1	08/25/25 02:32	8/21/25	
Aroclor 1254	51 U	51	1	08/25/25 02:32	8/21/25	
Aroclor 1260	51 U	51	1	08/25/25 02:32	8/21/25	
Aroclor 1262	51 U	51	1	08/25/25 02:32	8/21/25	
Aroclor 1268	51 U	51	1	08/25/25 02:32	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	82	10 - 138	08/25/25 02:32	
Tetrachloro-m-xylene	51	11 - 122	08/25/25 02:32	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:25
Date Received: 08/20/25 09:30

Sample Name: 11118 SB03 (5-6)
Lab Code: R2510154-003

Units: ug/Kg
Basis: Dry

Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

Analysis Method: 8082A
Prep Method: EPA 3546

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	120 U	120	1	08/25/25 02:45	8/21/25	
Aroclor 1221	230 U	230	1	08/25/25 02:45	8/21/25	
Aroclor 1232	120 U	120	1	08/25/25 02:45	8/21/25	
Aroclor 1242	120 U	120	1	08/25/25 02:45	8/21/25	
Aroclor 1248	120 U	120	1	08/25/25 02:45	8/21/25	
Aroclor 1254	120 U	120	1	08/25/25 02:45	8/21/25	
Aroclor 1260	120 U	120	1	08/25/25 02:45	8/21/25	
Aroclor 1262	120 U	120	1	08/25/25 02:45	8/21/25	
Aroclor 1268	120 U	120	1	08/25/25 02:45	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	70	10 - 138	08/25/25 02:45	
Tetrachloro-m-xylene	49	11 - 122	08/25/25 02:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:05
Date Received: 08/20/25 09:30

Sample Name: 11118 SB01 (1-2)
Lab Code: R2510154-001

Units: ug/Kg
Basis: Dry

Chlorinated Herbicides by GC

Analysis Method: 8151A
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
2,4,5-T	13 U	13	1	08/26/25 22:19	8/22/25	
2,4,5-TP	13 U	13	1	08/26/25 22:19	8/22/25	
2,4-D	13 U	13	1	08/26/25 22:19	8/22/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
DCAA	57	10 - 151	08/26/25 22:19	

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Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:12
Date Received: 08/20/25 09:30

Sample Name: 11118 SB02 (3-4)
Lab Code: R2510154-002

Units: ug/Kg
Basis: Dry

Chlorinated Herbicides by GC

Analysis Method: 8151A
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
2,4,5-T	11 U	11	1	08/26/25 22:37	8/22/25	
2,4,5-TP	11 U	11	1	08/26/25 22:37	8/22/25	
2,4-D	11 U	11	1	08/26/25 22:37	8/22/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
DCAA	54	10 - 151	08/26/25 22:37	

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Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:25
Date Received: 08/20/25 09:30

Sample Name: 11118 SB03 (5-6)
Lab Code: R2510154-003

Units: ug/Kg
Basis: Dry

Chlorinated Herbicides by GC

Analysis Method: 8151A
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
2,4,5-T	12 U	12	1	08/26/25 22:56	8/22/25	
2,4,5-TP	12 U	12	1	08/26/25 22:56	8/22/25	
2,4-D	12 U	12	1	08/26/25 22:56	8/22/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
DCAA	59	10 - 151	08/26/25 22:56	



General Chemistry

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Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Sample Name: 11118 SB01 (1-2)
Lab Code: R2510154-001

Service Request: R2510154
Date Collected: 08/12/25 14:05
Date Received: 08/20/25 09:30

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	88.6	Percent	-	1	08/29/25 10:00	

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Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Sample Name: 11118 SB02 (3-4)
Lab Code: R2510154-002

Service Request: R2510154
Date Collected: 08/12/25 14:12
Date Received: 08/20/25 09:30

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	94.6	Percent	-	1	08/29/25 10:00	

ALS Group USA, Corp.
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Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Sample Name: 11118 SB03 (5-6)
Lab Code: R2510154-003

Service Request: R2510154
Date Collected: 08/12/25 14:25
Date Received: 08/20/25 09:30

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	82.6	Percent	-	1	08/29/25 10:00	



QC Summary Forms

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Semivolatile Organic Compounds by GC/MS

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QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154

SURROGATE RECOVERY SUMMARY

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Extraction Method: EPA 3546

Sample Name	Lab Code	2-Fluorobiphenyl	Nitrobenzene-d5	p-Terphenyl-d14
		18 - 104	12 - 98	26 - 134
11118 SB01 (1-2)	R2510154-001	65	62	79
11118 SB02 (3-4)	R2510154-002	58	54	77
11118 SB03 (5-6)	R2510154-003	64	60	83
Method Blank	RQ2511066-01	54	51	70
Lab Control Sample	RQ2511066-02	61	52	75
Duplicate Lab Control Sample	RQ2511066-03	58	50	74

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Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2511066-01

Units:
Basis: Dry

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Prep Method: EPA 3546

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Methylphenols, Total	U	-	1	08/21/25 13:25	8/21/25	
1,2,4,5-Tetrachlorobenzene	330 U	330	1	08/21/25 13:25	8/21/25	
1-Methylnaphthalene	330 U	330	1	08/21/25 13:25	8/21/25	
2-Methylnaphthalene	330 U	330	1	08/21/25 13:25	8/21/25	
Acenaphthene	330 U	330	1	08/21/25 13:25	8/21/25	
Acenaphthylene	330 U	330	1	08/21/25 13:25	8/21/25	
Anthracene	330 U	330	1	08/21/25 13:25	8/21/25	
Benz(a)anthracene	330 U	330	1	08/21/25 13:25	8/21/25	
Benzo(a)pyrene	330 U	330	1	08/21/25 13:25	8/21/25	
Benzo(b)fluoranthene	330 U	330	1	08/21/25 13:25	8/21/25	
Benzo(g,h,i)perylene	330 U	330	1	08/21/25 13:25	8/21/25	
Benzo(k)fluoranthene	330 U	330	1	08/21/25 13:25	8/21/25	
1,4-Dichlorobenzene	330 U	330	1	08/21/25 13:25	8/21/25	
Biphenyl	330 U	330	1	08/21/25 13:25	8/21/25	
Chrysene	330 U	330	1	08/21/25 13:25	8/21/25	
1,4-Dioxane	67 U	67	1	08/21/25 13:25	8/21/25	
Dibenz(a,h)anthracene	330 U	330	1	08/21/25 13:25	8/21/25	
Dibenzofuran	330 U	330	1	08/21/25 13:25	8/21/25	
Fluoranthene	330 U	330	1	08/21/25 13:25	8/21/25	
Fluorene	330 U	330	1	08/21/25 13:25	8/21/25	
Indeno(1,2,3-cd)pyrene	330 U	330	1	08/21/25 13:25	8/21/25	
Naphthalene	330 U	330	1	08/21/25 13:25	8/21/25	
Phenanthrene	330 U	330	1	08/21/25 13:25	8/21/25	
Pyrene	330 U	330	1	08/21/25 13:25	8/21/25	
2,3,4,6-Tetrachlorophenol	330 U	330	1	08/21/25 13:25	8/21/25	
2,4,5-Trichlorophenol	330 U	330	1	08/21/25 13:25	8/21/25	
2,4,6-Trichlorophenol	330 U	330	1	08/21/25 13:25	8/21/25	
2,4-Dichlorophenol	330 U	330	1	08/21/25 13:25	8/21/25	
2,4-Dimethylphenol	330 U	330	1	08/21/25 13:25	8/21/25	
2,4-Dinitrophenol	1700 U	1700	1	08/21/25 13:25	8/21/25	
2,4-Dinitrotoluene	330 U	330	1	08/21/25 13:25	8/21/25	
2,6-Dinitrotoluene	330 U	330	1	08/21/25 13:25	8/21/25	
2-Chloronaphthalene	330 U	330	1	08/21/25 13:25	8/21/25	
2-Chlorophenol	330 U	330	1	08/21/25 13:25	8/21/25	
2-Methylphenol	330 U	330	1	08/21/25 13:25	8/21/25	
2-Nitroaniline	1700 U	1700	1	08/21/25 13:25	8/21/25	
2-Nitrophenol	330 U	330	1	08/21/25 13:25	8/21/25	
3,3'-Dichlorobenzidine	330 U	330	1	08/21/25 13:25	8/21/25	
3- and 4-Methylphenol Coelution	330 U	330	1	08/21/25 13:25	8/21/25	
3-Nitroaniline	1700 U	1700	1	08/21/25 13:25	8/21/25	
4,6-Dinitro-2-methylphenol	1700 U	1700	1	08/21/25 13:25	8/21/25	
4-Bromophenyl Phenyl Ether	330 U	330	1	08/21/25 13:25	8/21/25	
4-Chloro-3-methylphenol	330 U	330	1	08/21/25 13:25	8/21/25	

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Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2511066-01

Units:
Basis: Dry

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Prep Method: EPA 3546

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4-Chloroaniline	330 U	330	1	08/21/25 13:25	8/21/25	
4-Chlorophenyl Phenyl Ether	330 U	330	1	08/21/25 13:25	8/21/25	
4-Nitroaniline	1700 U	1700	1	08/21/25 13:25	8/21/25	
4-Nitrophenol	1700 U	1700	1	08/21/25 13:25	8/21/25	
Acetophenone	330 U	330	1	08/21/25 13:25	8/21/25	
Atrazine	330 U	330	1	08/21/25 13:25	8/21/25	
Benzaldehyde	1700 U	1700	1	08/21/25 13:25	8/21/25	
Benzoic Acid	1700 U	1700	1	08/21/25 13:25	8/21/25	
Bis(1-chloroisopropyl) Ether	330 U	330	1	08/21/25 13:25	8/21/25	
Bis(2-chloroethoxy)methane	330 U	330	1	08/21/25 13:25	8/21/25	
Bis(2-chloroethyl) Ether	330 U	330	1	08/21/25 13:25	8/21/25	
Bis(2-ethylhexyl) Phthalate	500 U	500	1	08/21/25 13:25	8/21/25	
Butyl Benzyl Phthalate	330 U	330	1	08/21/25 13:25	8/21/25	
Caprolactam	330 U	330	1	08/21/25 13:25	8/21/25	
Carbazole	330 U	330	1	08/21/25 13:25	8/21/25	
Di-n-butyl Phthalate	330 U	330	1	08/21/25 13:25	8/21/25	
Di-n-octyl Phthalate	330 U	330	1	08/21/25 13:25	8/21/25	
Diethyl Phthalate	330 U	330	1	08/21/25 13:25	8/21/25	
Dimethyl Phthalate	330 U	330	1	08/21/25 13:25	8/21/25	
Hexachlorobenzene	330 U	330	1	08/21/25 13:25	8/21/25	
Hexachlorobutadiene	330 U	330	1	08/21/25 13:25	8/21/25	
Hexachlorocyclopentadiene	330 U	330	1	08/21/25 13:25	8/21/25	
Hexachloroethane	330 U	330	1	08/21/25 13:25	8/21/25	
Isophorone	330 U	330	1	08/21/25 13:25	8/21/25	
N-Nitrosodi-n-propylamine	330 U	330	1	08/21/25 13:25	8/21/25	
N-Nitrosodiphenylamine	330 U	330	1	08/21/25 13:25	8/21/25	
Nitrobenzene	330 U	330	1	08/21/25 13:25	8/21/25	
Pentachlorophenol (PCP)	1700 U	1700	1	08/21/25 13:25	8/21/25	
Phenol	330 U	330	1	08/21/25 13:25	8/21/25	
Pyridine	1700 U	1700	1	08/21/25 13:25	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	54	18 - 104	08/21/25 13:25	
Nitrobenzene-d5	51	12 - 98	08/21/25 13:25	
p-Terphenyl-d14	70	26 - 134	08/21/25 13:25	

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QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Analyzed: 08/21/25

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Units:ug/Kg
Basis:Dry

Analyte Name	Lab Control Sample RQ2511066-02				Duplicate Lab Control Sample RQ2511066-03				RPD	RPD Limit
	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits		
1-Methylnaphthalene	8270E	1630	3320	49	1740	3330	52	29-100	6	30
1,2,4,5-Tetrachlorobenzene	8270E	1830	3320	55	1650	3330	49	20-126	10	30
2-Methylnaphthalene	8270E	1540	3320	46	1660	3330	50	29-99	7	30
Acenaphthene	8270E	1850	3320	56	1990	3330	60	41-110	7	30
Acenaphthylene	8270E	2090	3320	63	2230	3330	67	44-122	6	30
Anthracene	8270E	1950	3320	59	2070	3330	62	41-123	6	30
Benz(a)anthracene	8270E	1990	3320	60	2140	3330	64	44-116	8	30
Benzo(a)pyrene	8270E	2270	3320	68	2420	3330	73	56-146	7	30
Benzo(b)fluoranthene	8270E	1860	3320	56	2000	3330	60	47-120	7	30
Benzo(g,h,i)perylene	8270E	1920	3320	58	2060	3330	62	41-129	7	30
Benzo(k)fluoranthene	8270E	2020	3320	61	2170	3330	65	49-124	7	30
1,4-Dichlorobenzene	8270E	1430	3320	43	1610	3330	48	16-83	12	30
Biphenyl	8270E	1920	3320	58	1720	3330	52	24-112	11	30
Chrysene	8270E	2030	3320	61	2180	3330	65	44-119	7	30
1,4-Dioxane	8270E	1070	3320	32	1050	3330	32	10-58	2	30
Dibenz(a,h)anthracene	8270E	2030	3320	61	2160	3330	65	18-146	6	30
Dibenzofuran	8270E	1940	3320	58	2070	3330	62	43-113	7	30
Fluoranthene	8270E	2000	3320	60	2140	3330	64	39-128	6	30
Fluorene	8270E	1960	3320	59	2070	3330	62	40-117	5	30
Indeno(1,2,3-cd)pyrene	8270E	2120	3320	64	2290	3330	69	43-129	8	30
Naphthalene	8270E	1550	3320	47	1660	3330	50	31-93	7	30
Phenanthrene	8270E	1810	3320	54	1920	3330	58	39-120	6	30
Pyrene	8270E	1960	3320	59	2130	3330	64	45-125	8	30
2,3,4,6-Tetrachlorophenol	8270E	2300	3320	69	2440	3330	73	42-117	6	30
2,4,5-Trichlorophenol	8270E	2080	3320	63	2180	3330	66	40-114	5	30
2,4,6-Trichlorophenol	8270E	1970	3320	59	2130	3330	64	33-108	8	30
2,4-Dichlorophenol	8270E	1820	3320	55	1930	3330	58	30-103	6	30
2,4-Dimethylphenol	8270E	1810	3320	54	1900	3330	57	32-100	5	30
2,4-Dinitrophenol	8270E	1540 J	3320	46	1700 J	3330	51	10-97	9	30
2,4-Dinitrotoluene	8270E	2060	3320	62	2210	3330	67	53-120	7	30
2,6-Dinitrotoluene	8270E	2060	3320	62	2220	3330	67	48-119	7	30
2-Chloronaphthalene	8270E	1850	3320	56	1980	3330	60	33-103	7	30
2-Chlorophenol	8270E	1780	3320	53	1910	3330	57	26-90	7	30

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QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Analyzed: 08/21/25

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Units:ug/Kg
Basis:Dry

Lab Control Sample RQ2511066-02					Duplicate Lab Control Sample RQ2511066-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
2-Methylphenol	8270E	1950	3320	59	2080	3330	63	33-99	7	30
2-Nitroaniline	8270E	1970	3320	59	2110	3330	63	41-119	7	30
2-Nitrophenol	8270E	1660	3320	50	1780	3330	53	24-98	7	30
3- and 4-Methylphenol Coelution	8270E	2030	3320	61	2210	3330	66	32-100	9	30
3-Nitroaniline	8270E	1700	3320	51	1750	3330	53	29-105	3	30
4,6-Dinitro-2-methylphenol	8270E	1960	3320	59	2110	3330	64	20-105	7	30
4-Bromophenyl Phenyl Ether	8270E	2000	3320	60	2130	3330	64	37-116	7	30
4-Chloro-3-methylphenol	8270E	1900	3320	57	2000	3330	60	40-116	5	30
4-Chloroaniline	8270E	1330	3320	40	1230	3330	37	10-87	8	30
4-Chlorophenyl Phenyl Ether	8270E	1920	3320	58	2050	3330	62	42-111	6	30
4-Nitroaniline	8270E	1600 J	3320	48	1880	3330	57	43-120	16	30
4-Nitrophenol	8270E	1760	3320	53	1810	3330	54	34-116	2	30
Acetophenone	8270E	1830	3320	55	1640	3330	49	23-87	11	30
Benzoic Acid	8270E	1960	3320	59	2120	3330	64	10-126	8	30
Bis(1-chloroisopropyl) Ether	8270E	1760	3320	53	1930	3330	58	22-99	9	30
Bis(2-chloroethoxy)methane	8270E	1820	3320	55	1930	3330	58	38-119	6	30
Bis(2-chloroethyl) Ether	8270E	1630	3320	49	1780	3330	53	23-94	9	30
Bis(2-ethylhexyl) Phthalate	8270E	2190	3320	66	2370	3330	71	38-139	8	30
Butyl Benzyl Phthalate	8270E	2080	3320	63	2240	3330	67	40-134	8	30
Caprolactam	8270E	1890	3320	57	1630	3330	49	21-128	15	30
Carbazole	8270E	1960	3320	59	2140	3330	64	42-131	9	30
Di-n-butyl Phthalate	8270E	2170	3320	65	2340	3330	70	42-141	8	30
Di-n-octyl Phthalate	8270E	2290	3320	69	2470	3330	74	38-143	8	30
Diethyl Phthalate	8270E	1980	3320	60	2100	3330	63	43-118	6	30
Dimethyl Phthalate	8270E	1990	3320	60	2140	3330	64	40-118	7	30
Hexachlorobenzene	8270E	1940	3320	59	2070	3330	62	35-122	6	30
Hexachlorobutadiene	8270E	1510	3320	45	1650	3330	49	28-96	9	30
Hexachlorocyclopentadiene	8270E	1670	3320	50	1850	3330	55	10-111	10	30
Hexachloroethane	8270E	1460	3320	44	1660	3330	50	18-85	13	30
Isophorone	8270E	1800	3320	54	1920	3330	58	39-104	6	30
N-Nitrosodi-n-propylamine	8270E	1790	3320	54	1910	3330	57	30-98	7	30
N-Nitrosodiphenylamine	8270E	2220	3320	67	2380	3330	72	43-130	7	30
Nitrobenzene	8270E	1640	3320	49	1760	3330	53	31-99	7	30

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dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Analyzed: 08/21/25

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Units:ug/Kg
Basis:Dry

Analyte Name	Lab Control Sample				Duplicate Lab Control Sample					
	RQ2511066-02				RQ2511066-03					
	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Pentachlorophenol (PCP)	8270E	1680 J	3320	51	1770	3330	53	36-138	5	30
Phenol	8270E	1850	3320	56	1980	3330	60	31-100	7	30
Pyridine	8270E	2760	6640	42	2910	6660	44	12-80	5	30



Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory

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QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154

SURROGATE RECOVERY SUMMARY

Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

Analysis Method: 8081B
Extraction Method: EPA 3546

Sample Name	Lab Code	Decachlorobiphenyl	Tetrachloro-m-xylene
		10 - 159	10 - 132
11118 SB01 (1-2)	R2510154-001	64	55
11118 SB02 (3-4)	R2510154-002	79	54
11118 SB03 (5-6)	R2510154-003	71	52
Method Blank	RQ2511079-01	64	54
Lab Control Sample	RQ2511079-02	68	61
Duplicate Lab Control Sample	RQ2511079-03	69	58

ALS Group USA, Corp.
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Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2511079-01

Units: ug/Kg
Basis: Dry

Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

Analysis Method: 8081B
Prep Method: EPA 3546

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
4,4'-DDE	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
4,4'-DDT	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
Aldrin	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
Chlordane	8.3 U	8.3	1	08/25/25 12:41	8/21/25	
Dieldrin	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
Endosulfan I	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
Endosulfan II	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
Endosulfan Sulfate	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
Endrin	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
Endrin Aldehyde	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
Endrin Ketone	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
Heptachlor	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
Heptachlor Epoxide	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
Methoxychlor	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
Toxaphene	33 U	33	1	08/25/25 12:41	8/21/25	
alpha-BHC	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
alpha-Chlordane	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
beta-BHC	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
delta-BHC	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
gamma-BHC (Lindane)	1.7 U	1.7	1	08/25/25 12:41	8/21/25	
gamma-Chlordane	1.7 U	1.7	1	08/25/25 12:41	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	64	10 - 159	08/25/25 12:41	
Tetrachloro-m-xylene	54	10 - 132	08/25/25 12:41	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Analyzed: 08/25/25

Duplicate Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

Units:ug/Kg
Basis:Dry

Lab Control Sample RQ2511079-02					Duplicate Lab Control Sample RQ2511079-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4,4'-DDD	8081B	5.86	6.57	89	5.89	6.64	89	48-121	<1	30
4,4'-DDE	8081B	5.52	6.57	84	5.24	6.64	79	51-119	5	30
4,4'-DDT	8081B	6.01	6.57	92	6.09	6.64	92	51-126	1	30
Aldrin	8081B	4.95	6.57	75	4.64	6.64	70	45-109	6	30
Dieldrin	8081B	5.28	6.57	80	5.11	6.64	77	56-111	3	30
Endosulfan I	8081B	4.60	6.57	70	4.55	6.64	68	54-109	1	30
Endosulfan II	8081B	5.12	6.57	78	5.16	6.64	78	50-116	<1	30
Endosulfan Sulfate	8081B	5.30	6.57	81	5.31	6.64	80	55-115	<1	30
Endrin	8081B	5.41	6.57	82	5.24	6.64	79	49-124	3	30
Endrin Aldehyde	8081B	5.42	6.57	83	5.44	6.64	82	21-139	<1	30
Endrin Ketone	8081B	5.52	6.57	84	5.44	6.64	82	50-124	1	30
Heptachlor	8081B	5.17	6.57	79	4.88	6.64	73	43-115	6	30
Heptachlor Epoxide	8081B	5.38	6.57	82	5.07	6.64	76	53-113	6	30
Methoxychlor	8081B	6.41	6.57	98	6.17	6.64	93	47-141	4	30
alpha-BHC	8081B	5.00	6.57	76	4.55	6.64	68	44-109	10	30
alpha-Chlordane	8081B	5.23	6.57	80	5.09	6.64	77	52-114	3	30
beta-BHC	8081B	5.76	6.57	88	5.22	6.64	79	49-119	10	30
delta-BHC	8081B	5.50	6.57	84	5.32	6.64	80	49-113	3	30
gamma-BHC (Lindane)	8081B	4.88	6.57	74	4.55	6.64	69	43-112	7	30
gamma-Chlordane	8081B	5.37	6.57	82	5.12	6.64	77	51-117	5	30

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: ALS Environmental - US
Project: 11118_Whithorn
Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:05
Date Received: 8/20/25

Sample Name: 11118 SB01 (1-2)
Lab Code: R2510154-001

Units: ug/Kg
Basis: Dry
Percent Solids: 88.6

Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

Analytical Method: 8081B
Prep Method: EPA 3546

Analyte Name	MRL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDE	2.8	16	17	6		1	08/25/25 15:21
4,4'-DDT	2.8	4.2	5.6	29		1	08/25/25 15:21

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: ALS Environmental - US
Project: 11118_Whithorn
Matrix: Soil

Service Request: R2510154
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: RQ2511079-02

Units: ug/Kg
Basis: Dry

Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

Analytical Method: 8081B
Prep Method: EPA 3546

Analyte Name	MRL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDD	1.7	5.86	6.03	3		1	08/25/25 12:59
4,4'-DDE	1.7	5.52	5.79	5		1	08/25/25 12:59
4,4'-DDT	1.7	6.01	6.58	9		1	08/25/25 12:59
Aldrin	1.7	4.95	5.24	6		1	08/25/25 12:59
Dieldrin	1.7	5.28	5.59	6		1	08/25/25 12:59
Endosulfan I	1.7	4.60	5.01	9		1	08/25/25 12:59
Endosulfan II	1.7	5.12	5.59	9		1	08/25/25 12:59
Endosulfan Sulfate	1.7	5.30	5.86	10		1	08/25/25 12:59
Endrin	1.7	5.41	5.78	7		1	08/25/25 12:59
Endrin Aldehyde	1.7	5.42	5.45	<1		1	08/25/25 12:59
Endrin Ketone	1.7	5.52	5.78	5		1	08/25/25 12:59
Heptachlor	1.7	5.17	5.48	6		1	08/25/25 12:59
Heptachlor Epoxide	1.7	5.38	5.68	5		1	08/25/25 12:59
Methoxychlor	1.7	6.41	6.43	<1		1	08/25/25 12:59
alpha-BHC	1.7	5.00	5.42	8		1	08/25/25 12:59
alpha-Chlordane	1.7	5.23	5.55	6		1	08/25/25 12:59
beta-BHC	1.7	5.76	5.82	1		1	08/25/25 12:59
delta-BHC	1.7	5.50	5.76	5		1	08/25/25 12:59
gamma-BHC (Lindane)	1.7	4.88	5.38	10		1	08/25/25 12:59
gamma-Chlordane	1.7	5.37	5.89	9		1	08/25/25 12:59

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: ALS Environmental - US

Project: 11118_Whithorn

Matrix: Soil

Service Request: R2510154

Date Collected: NA

Date Received:

Sample Name: Duplicate Lab Control Sample

Lab Code: RQ2511079-03

Units: ug/Kg

Basis: Dry

Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

Analytical Method: 8081B

Prep Method: EPA 3546

Analyte Name	MRL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDD	1.7	5.89	5.89	<1		1	08/25/25 13:17
4,4'-DDE	1.7	5.24	5.72	9		1	08/25/25 13:17
4,4'-DDT	1.7	6.09	6.48	6		1	08/25/25 13:17
Aldrin	1.7	4.64	4.92	6		1	08/25/25 13:17
Dieldrin	1.7	5.11	5.70	11		1	08/25/25 13:17
Endosulfan I	1.7	4.55	4.92	8		1	08/25/25 13:17
Endosulfan II	1.7	5.16	5.55	7		1	08/25/25 13:17
Endosulfan Sulfate	1.7	5.31	5.81	9		1	08/25/25 13:17
Endrin	1.7	5.24	5.57	6		1	08/25/25 13:17
Endrin Aldehyde	1.7	5.44	5.50	1		1	08/25/25 13:17
Endrin Ketone	1.7	5.44	5.63	3		1	08/25/25 13:17
Heptachlor	1.7	4.88	5.23	7		1	08/25/25 13:17
Heptachlor Epoxide	1.7	5.07	5.61	10		1	08/25/25 13:17
Methoxychlor	1.7	6.17	6.36	3		1	08/25/25 13:17
alpha-BHC	1.7	4.55	5.01	10		1	08/25/25 13:17
alpha-Chlordane	1.7	5.09	5.46	7		1	08/25/25 13:17
beta-BHC	1.7	5.22	5.33	2		1	08/25/25 13:17
delta-BHC	1.7	5.32	5.58	5		1	08/25/25 13:17
gamma-BHC (Lindane)	1.7	4.55	5.14	12		1	08/25/25 13:17
gamma-Chlordane	1.7	5.12	5.73	11		1	08/25/25 13:17

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: ALS Environmental - US
Project: 11118_Whithorn
Matrix: Soil

Service Request: R2510154

Date Collected: NA

Date Received:

Sample Name: Performance Evaluation

Lab Code: RQ2511366-01

Units: ug/Kg

Basis: Dry

Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

8081B

Prep Method:

		Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDT	1.7	70	77	10	E	1	08/25/25 11:30
Endrin	1.7	33	35	6		1	08/25/25 11:30
Methoxychlor	1.7	170	180	6	E	1	08/25/25 11:30
alpha-BHC	1.7	7.1	6.6	7		1	08/25/25 11:30
beta-BHC	1.7	6.7	6.2	8		1	08/25/25 11:30
gamma-BHC (Lindane)	1.7	7.0	6.5	7		1	08/25/25 11:30

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: ALS Environmental - US
Project: 11118_Whithorn
Matrix: Soil

Service Request: R2510154

Date Collected: NA

Date Received:

Sample Name: Performance Evaluation

Lab Code: RQ2511526-01

Units: ug/Kg

Basis: Dry

Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

8081B

Prep Method:

		Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDT	1.7	79	87	10	E	1	08/26/25 09:53
Endrin	1.7	36	38	5		1	08/26/25 09:53
Methoxychlor	1.7	200	200	<1	E	1	08/26/25 09:53
alpha-BHC	1.7	6.9	7.4	7		1	08/26/25 09:53
beta-BHC	1.7	6.7	7.0	4		1	08/26/25 09:53
gamma-BHC (Lindane)	1.7	6.8	7.3	7		1	08/26/25 09:53

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154

SURROGATE RECOVERY SUMMARY
Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

Analysis Method: 8082A
Extraction Method: EPA 3546

Sample Name	Lab Code	Decachlorobiphenyl	Tetrachloro-m-xylene
		10 - 138	11 - 122
11118 SB01 (1-2)	R2510154-001	70	53
11118 SB02 (3-4)	R2510154-002	82	51
11118 SB03 (5-6)	R2510154-003	70	49
Method Blank	RQ2511079-01	71	54
Lab Control Sample	RQ2511079-04	77	65
Duplicate Lab Control Sample	RQ2511079-05	84	62

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2511079-01

Units: ug/Kg
Basis: Dry

Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

Analysis Method: 8082A
Prep Method: EPA 3546

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	32 U	32	1	08/24/25 23:50	8/21/25	
Aroclor 1221	66 U	66	1	08/24/25 23:50	8/21/25	
Aroclor 1232	32 U	32	1	08/24/25 23:50	8/21/25	
Aroclor 1242	32 U	32	1	08/24/25 23:50	8/21/25	
Aroclor 1248	32 U	32	1	08/24/25 23:50	8/21/25	
Aroclor 1254	32 U	32	1	08/24/25 23:50	8/21/25	
Aroclor 1260	32 U	32	1	08/24/25 23:50	8/21/25	
Aroclor 1262	32 U	32	1	08/24/25 23:50	8/21/25	
Aroclor 1268	32 U	32	1	08/24/25 23:50	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	71	10 - 138	08/24/25 23:50	
Tetrachloro-m-xylene	54	11 - 122	08/24/25 23:50	

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Analyzed: 08/25/25

Duplicate Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

Units:ug/Kg
Basis:Dry

Lab Control Sample					Duplicate Lab Control Sample					
RQ2511079-04					RQ2511079-05					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aroclor 1016	8082A	131	166	79	126	166	76	34-141	4	30
Aroclor 1260	8082A	140	166	85	144	166	87	30-158	3	30

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: ALS Environmental - US
Project: 11118_Whithorn
Matrix: Soil

Service Request: R2510154
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: RQ2511079-04

Units: ug/Kg
Basis: Dry

Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

Analytical Method: 8082A
Prep Method: EPA 3546

Analyte Name	MRL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Aroclor 1016	33	131	137	4		1	08/25/25 00:03
Aroclor 1260	33	140	142	1		1	08/25/25 00:03

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: ALS Environmental - US
Project: 11118_Whithorn
Matrix: Soil

Service Request: R2510154
Date Collected: NA
Date Received:

Sample Name: Duplicate Lab Control Sample
Lab Code: RQ2511079-05

Units: ug/Kg
Basis: Dry

Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

Analytical Method: 8082A
Prep Method: EPA 3546

Analyte Name	MRL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Aroclor 1016	33	126	134	6		1	08/25/25 00:17
Aroclor 1260	33	144	146	1		1	08/25/25 00:17

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154

SURROGATE RECOVERY SUMMARY
Chlorinated Herbicides by GC

Analysis Method: 8151A
Extraction Method: Method

Sample Name	Lab Code	DCAA
		10 - 151
11118 SB01 (1-2)	R2510154-001	57
11118 SB02 (3-4)	R2510154-002	54
11118 SB03 (5-6)	R2510154-003	59
Method Blank	RQ2511152-01	63
Lab Control Sample	RQ2511152-02	59
Duplicate Lab Control Sample	RQ2511152-03	65

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2511152-01
Units: ug/Kg
Basis: Dry

Chlorinated Herbicides by GC

Analysis Method: 8151A
Prep Method: Method

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
2,4,5-T	9.9 U	9.9	1	08/26/25 19:16	8/22/25	
2,4,5-TP	9.9 U	9.9	1	08/26/25 19:16	8/22/25	
2,4-D	9.9 U	9.9	1	08/26/25 19:16	8/22/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
DCAA	63	10 - 151	08/26/25 19:16	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Analyzed: 08/26/25

Duplicate Lab Control Sample Summary
Chlorinated Herbicides by GC

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2511152-02

Duplicate Lab Control Sample
RQ2511152-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
2,4,5-T	8151A	16.3	25.0	65	19.0	25.2	75	19-127	15	30
2,4,5-TP	8151A	13.9	25.0	56	16.4	25.2	65	18-122	16	30
2,4-D	8151A	12.7	25.0	51	14.7	25.2	58	31-119	15	30

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: ALS Environmental - US
Project: 11118_Whithorn
Matrix: Soil

Service Request: R2510154
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: RQ2511152-02

Units: ug/Kg
Basis: Dry

Chlorinated Herbicides by GC

Analytical Method: 8151A
Prep Method: Method

Analyte Name	MRL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
2,4,5-T	10	16.3	16.7	2		1	08/26/25 19:34
2,4,5-TP	10	13.9	14.4	4		1	08/26/25 19:34
2,4-D	10	12.7	15.2	18		1	08/26/25 19:34

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: ALS Environmental - US
Project: 11118_Whithorn
Matrix: Soil

Sample Name: Duplicate Lab Control Sample
Lab Code: RQ2511152-03

Service Request: R2510154
Date Collected: NA
Date Received:

Units: ug/Kg
Basis: Dry

Chlorinated Herbicides by GC

Analytical Method: 8151A
Prep Method: Method

Analyte Name	MRL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
2,4,5-T	10	19.0	18.1	5		1	08/26/25 19:52
2,4,5-TP	10	16.4	16.5	<1		1	08/26/25 19:52
2,4-D	10	14.7	17.7	19		1	08/26/25 19:52



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2162233

Work Order: HN2511317
Date Collected: NA
Date Received: NA
Run ID: 3403230

General Chemistry Parameters

MB	CLIENT ID: Method Blank	Lab ID: QC-2162233-001
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 08/15/25 15:24
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-2162233-002
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 08/15/25 15:24
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			

DUP	CLIENT ID: 11118 SB01 (1-2)	Lab ID: QC-2162233-004
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 08/15/25 15:24
Prep Date: NA

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	10.9	%	0.1		11.4			4.56	10	

The following samples were analyzed in this batch: HN2511317-001, HN2511317-002, HN2511317-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2163170

Work Order: HN2511317
Date Collected: NA
Date Received: NA
Run ID: 3405747

General Chemistry Parameters

MB	CLIENT ID: Method Blank	Lab ID: QC-2163170-001
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 08/15/25 17:43
Prep Date: 08/15/25 15:57

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-2163170-002
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 08/15/25 17:53
Prep Date: 08/15/25 15:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	96.0	mg/kg	10.0	100		96.0	87-110			

MS	CLIENT ID: 11118 SB01 (1-2)	Lab ID: QC-2163170-004
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 08/15/25 18:13
Prep Date: 08/15/25 15:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	97.8	mg/kg	11.2	99.602	<11.4	91.6	87-110			

MSD	CLIENT ID: 11118 SB01 (1-2)	Lab ID: QC-2163170-005
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 08/15/25 18:22
Prep Date: 08/15/25 15:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	100	mg/kg	11.2	99.602	<11.4	93.8	87-110	2.21	15	

The following samples were analyzed in this batch: HN2511317-001, HN2511317-002, HN2511317-003



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2162145

Work Order: HN2511317
Date Collected: NA
Date Received: NA
Run ID: 3405106

Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2162145-001
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 08/18/25 10:38
Prep Date: 08/15/25 14:36

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-2162145-002
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 08/18/25 10:39
Prep Date: 08/15/25 14:36

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.172	mg/kg	0.0200	0.1665		104	80-120			

The following samples were analyzed in this batch: HN2511317-001, HN2511317-002, HN2511317-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2165850

Work Order: HN2511317
Date Collected: NA
Date Received: NA
Run ID: 3410824

Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2165850-001
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/18/25 21:24
Prep Date: 08/18/25 10:24

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-2165850-002
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/18/25 21:26
Prep Date: 08/18/25 10:24

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	4.77	mg/kg	0.250	5		95.3	80-120			
Barium	4.50	mg/kg	0.250	5		90.1	80-120			
Cadmium	4.82	mg/kg	0.100	5		96.4	80-120			
Chromium	4.99	mg/kg	0.250	5		99.7	80-120			
Lead	4.80	mg/kg	0.250	5		96.0	80-120			
Selenium	4.77	mg/kg	0.250	5		95.4	80-120			
Zinc	5.18	mg/kg	0.500	5		104	80-120			

The following samples were analyzed in this batch: HN2511317-001, HN2511317-002



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2165850

Work Order: HN2511317
Date Collected: NA
Date Received: NA
Run ID: 3413394

Metals

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2165850-002
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Method: EPA 6020B**Dilution:** 1**Analysis Date:** 08/19/25 17:42**Prep Date:** 08/18/25 10:24

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Copper	4.99	mg/kg	0.250	5		99.8	80-120			
Silver	4.84	mg/kg	0.250	5		96.9	80-120			

The following samples were analyzed in this batch: HN2511317-001, HN2511317-002, HN2511317-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2165859

Work Order: HN2511317
Date Collected: NA
Date Received: NA
Run ID: 3410807

Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2165859-001
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/18/25 20:30
Prep Date: 08/18/25 09:55

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-2165859-002
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/18/25 20:32
Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	4.62	mg/kg	0.250	5		92.4	80-120			
Barium	4.63	mg/kg	0.250	5		92.6	80-120			
Cadmium	5.04	mg/kg	0.100	5		101	80-120			
Chromium	4.91	mg/kg	0.250	5		98.2	80-120			
Lead	4.91	mg/kg	0.250	5		98.3	80-120			
Selenium	4.88	mg/kg	0.250	5		97.7	80-120			
Zinc	5.20	mg/kg	0.500	5		104	80-120			

MS	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2165859-004
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/18/25 20:35
Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	7.41	mg/kg	3.42	5.6497	<3.52	82.2	75-125			
Barium	19.5	mg/kg	3.42	5.6497	15.3	122	75-125			
Cadmium	5.50	mg/kg	1.37	5.6497	ND	96.5	75-125			
Chromium	11.1	mg/kg	3.42	5.6497	5.97	108	75-125			
Lead	7.76	mg/kg	3.42	5.6497	<3.52	90.3	75-125			
Selenium	5.10	mg/kg	3.42	5.6497	ND	90.1	75-125			
Zinc	22.4	mg/kg	6.84	5.6497	19.0	120	75-125			

MSD	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2165859-005
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/18/25 20:37
Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	8.93	mg/kg	3.46	5.7143	<3.52	108	75-125	18.6	20	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2165859

Work Order: HN2511317
Date Collected: NA
Date Received: NA
Run ID: 3410807

MSD	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2165859-005
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Method: EPA 6020B

Dilution: 10

Analysis Date: 08/18/25 20:37

Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Barium	34.0	mg/kg	3.46	5.7143	15.3	373	75-125	54.0	20	RS
Cadmium	5.62	mg/kg	1.38	5.7143	ND	97.6	75-125	2.26	20	
Chromium	13.3	mg/kg	3.46	5.7143	5.97	147	75-125	18.6	20	S
Lead	8.56	mg/kg	3.46	5.7143	<3.52	103	75-125	9.86	20	
Selenium	5.05	mg/kg	3.46	5.7143	ND	88.3	75-125	0.898	20	
Zinc	26.9	mg/kg	6.92	5.7143	19.0	197	75-125	18.3	20	S

PDS	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2165859-007
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Method: EPA 6020B

Dilution: 10

Analysis Date: 08/18/25 20:40

Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	57.1	mg/kg	3.52	58.072	<3.52	93.6	75-125			
Barium	64.2	mg/kg	3.52	58.072	15.3	88.7	75-125			
Cadmium	55.6	mg/kg	1.41	58.072	ND	95.7	75-125			
Chromium	61.6	mg/kg	3.52	58.072	5.97	97.5	75-125			
Lead	57.4	mg/kg	3.52	58.072	<3.52	94.2	75-125			
Selenium	52.6	mg/kg	3.52	58.072	ND	90.6	75-125			
Zinc	103	mg/kg	7.03	58.072	19.0	151	75-125			S

The following samples were analyzed in this batch: HN2511317-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2165859

Work Order: HN2511317
Date Collected: NA
Date Received: NA
Run ID: 3413394

Metals

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2165859-002
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/19/25 16:55
Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Copper	5.08	mg/kg	0.250	5		102	80-120			
Silver	5.07	mg/kg	0.250	5		101	80-120			

MS	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2165859-004
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/19/25 16:58
Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Copper	10.0	mg/kg	3.42	5.6497	5.49	97.4	75-125			
Silver	5.63	mg/kg	3.42	5.6497	ND	99.5	75-125			

MSD	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2165859-005
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/19/25 17:00
Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Copper	10.8	mg/kg	3.46	5.7143	5.49	110	75-125	7.39	20	
Silver	5.76	mg/kg	3.46	5.7143	ND	100	75-125	2.26	20	

PDS	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2165859-007
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/19/25 17:03
Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Copper	59.7	mg/kg	3.52	58.072	5.49	95.0	75-125			
Silver	53.4	mg/kg	3.52	58.072	ND	92.0	75-125			

The following samples were analyzed in this batch: HN2511317-001, HN2511317-002, HN2511317-003



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2157395

Work Order: HN2511317
Date Collected: 08/12/25 14:25
Date Received: 08/13/25 08:00
Run ID: 3431242

Volatile Organic Compounds by GC-MS

MS	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2157395-005
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/23/25 04:03

Prep Date: 08/18/25 14:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	829	µg/kg	43.8	1032	ND	80.3	75-121			
1,1,2,2-Tetrachloroethane	989	µg/kg	43.8	1032	ND	95.8	79-125			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	870	µg/kg	43.8	1032	ND	84.3	62-129			
1,1,2-Trichloroethane	890	µg/kg	43.8	1032	ND	86.2	80-123			
1,1-Dichloroethane	934	µg/kg	43.8	1032	ND	90.6	74-124			
1,1-Dichloroethylene	1030	µg/kg	43.8	1032	ND	99.5	68-131			
1,2,3-Trichlorobenzene	844	µg/kg	146	1032	ND	81.8	60-135			
1,2,3-Trichloropropane	918	µg/kg	43.8	1032	ND	89.0	77-121			
1,2,4-Trichlorobenzene	772	µg/kg	146	1032	ND	74.8	63-130			
1,2,4-Trimethylbenzene	930	µg/kg	43.8	1032	ND	90.2	64-126			
1,2-Dibromo-3-chloropropane (DBCP)	832	µg/kg	146	1032	ND	80.6	55-135			
1,2-Dibromoethane (EDB, Ethylene dibromide)	881	µg/kg	43.8	1032	ND	85.4	63-155			
1,2-Dichlorobenzene (o-Dichlorobenzene)	965	µg/kg	43.8	1032	ND	93.5	77-122			
1,2-Dichloroethane (Ethylene dichloride)	1020	µg/kg	146	1032	ND	98.4	70-130			
1,2-Dichloropropane	997	µg/kg	43.8	1032	ND	96.6	71-130			
1,3,5-Trimethylbenzene	938	µg/kg	146	1032	ND	91.0	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	851	µg/kg	43.8	1032	ND	82.4	78-121			
1,3-Dichloropropene	1440	µg/kg	87.7	2064	ND	69.6	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	860	µg/kg	43.8	1032	ND	83.3	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	1020	µg/kg	292	1032	ND	98.5	47-164			
2-Hexanone	1060	µg/kg	43.8	1032	ND	102	70-137			
4-Methyl-2-pentanone (MIBK)	1590	µg/kg	43.8	1032	ND	154	57-200			
Acetone	1130	µg/kg	146	1032	ND	109	52-190			
Benzene	1040	µg/kg	43.8	1032	ND	101	78-122			
Bromochloromethane	923	µg/kg	43.8	1032	ND	89.4	68-130			
Bromodichloromethane	799	µg/kg	43.8	1032	ND	77.4	75-125			
Bromoform	756	µg/kg	43.8	1032	ND	73.2	59-120			
Carbon disulfide	749	µg/kg	43.8	1032	ND	72.6	60-163			
Carbon tetrachloride	994	µg/kg	43.8	1032	ND	96.4	69-123			
Chlorobenzene	922	µg/kg	43.8	1032	ND	89.3	79-120			
Chlorodibromomethane	741	µg/kg	43.8	1032	ND	71.8	57-123			
Chloroethane (Ethyl chloride)	1160	µg/kg	146	1032	ND	113	38-132			
Chloroform	888	µg/kg	43.8	1032	ND	86.0	72-122			
cis & trans-1,2-Dichloroethene	1800	µg/kg	87.7	2064	ND	87.0	72-127			
cis-1,2-Dichloroethylene	934	µg/kg	43.8	1032	ND	90.5	74-125			
cis-1,3-Dichloropropene	778	µg/kg	43.8	1032	ND	75.4	62-124			
Dichlorodifluoromethane (Freon-12)	1140	µg/kg	146	1032	ND	110	28-137			
Ethylbenzene	977	µg/kg	43.8	1032	ND	94.6	75-121			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2157395

Work Order: HN2511317
Date Collected: 08/12/25 14:25
Date Received: 08/13/25 08:00
Run ID: 3431242

MS	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2157395-005
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/23/25 04:03

Prep Date: 08/18/25 14:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Isopropylbenzene	948	µg/kg	43.8	1032	ND	91.8	74-121			
m+p-Xylene	1960	µg/kg	87.7	2064	ND	95.2	67-129			
Methyl acetate	1240	µg/kg	365	1032	ND	120	61-125			
Methyl bromide (Bromomethane)	969	µg/kg	146	1032	ND	93.9	31-169			
Methyl chloride (Chloromethane)	1170	µg/kg	146	1032	ND	113	24-119			
Methyl tert-butyl ether (MTBE)	995	µg/kg	43.8	1032	ND	96.4	79-139			
Methylene chloride (Dichloromethane)	1020	µg/kg	365	1032	ND	98.6	62-135			
o-Xylene	966	µg/kg	43.8	1032	ND	93.6	75-120			
Styrene	930	µg/kg	43.8	1032	ND	90.1	74-126			
Tetrachloroethylene (Perchloroethylene)	1200	µg/kg	43.8	1032	ND	116	76-128			
Toluene	989	µg/kg	43.8	1032	ND	95.8	76-120			
Total Xylene	2930	µg/kg	132	3096	ND	94.7	67-129			
trans-1,2-Dichloroethylene	861	µg/kg	43.8	1032	ND	83.4	72-127			
trans-1,3-Dichloropropylene	658	µg/kg	43.8	1032	ND	63.8	66-120			S
Trichloroethene (Trichloroethylene)	896	µg/kg	43.8	1032	ND	86.8	75-122			
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	684	µg/kg	43.8	1032	ND	66.2	51-115			
Vinyl chloride (Chloroethene)	1210	µg/kg	43.8	1032	ND	118	43-128			
Surr: 1,2-Dichloroethane-d4	1040	µg/kg		1032		101	80-120			
Surr: 4-Bromofluorobenzene	1050	µg/kg		1032		102	80-120			
Surr: Dibromofluoromethane	980	µg/kg		1032		95.0	80-120			
Surr: Toluene-d8	1000	µg/kg		1032		97.4	80-120			

MSD	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2157395-006
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/23/25 04:19

Prep Date: 08/18/25 14:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	927	µg/kg	43.8	1032	ND	89.8	75-121	11.2	30	
1,1,2,2-Tetrachloroethane	1070	µg/kg	43.8	1032	ND	104	79-125	7.97	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	953	µg/kg	43.8	1032	ND	92.4	62-129	9.11	30	
1,1,2-Trichloroethane	977	µg/kg	43.8	1032	ND	94.7	80-123	9.40	30	
1,1-Dichloroethane	1050	µg/kg	43.8	1032	ND	102	74-124	12.1	30	
1,1-Dichloroethylene	1110	µg/kg	43.8	1032	ND	108	68-131	8.15	30	
1,2,3-Trichlorobenzene	968	µg/kg	146	1032	ND	93.8	60-135	13.7	30	
1,2,3-Trichloropropane	985	µg/kg	43.8	1032	ND	95.4	77-121	6.99	30	
1,2,4-Trichlorobenzene	894	µg/kg	146	1032	ND	86.6	63-130	14.6	30	
1,2,4-Trimethylbenzene	990	µg/kg	43.8	1032	ND	96.0	64-126	6.23	30	
1,2-Dibromo-3-chloropropane (DBCP)	818	µg/kg	146	1032	ND	79.3	55-135	1.69	30	
1,2-Dibromoethane (EDB, Ethylene dibromide)	911	µg/kg	43.8	1032	ND	88.2	63-155	3.34	30	
1,2-Dichlorobenzene (o-Dichlorobenzene)	1030	µg/kg	43.8	1032	ND	99.4	77-122	6.17	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2157395

Work Order: HN2511317
Date Collected: 08/12/25 14:25
Date Received: 08/13/25 08:00
Run ID: 3431242

MSD	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2157395-006
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/23/25 04:19

Prep Date: 08/18/25 14:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,2-Dichloroethane (Ethylene dichloride)	1090	µg/kg	146	1032	ND	106	70-130	7.34	30	
1,2-Dichloropropane	1030	µg/kg	43.8	1032	ND	99.7	71-130	3.11	30	
1,3,5-Trimethylbenzene	1030	µg/kg	146	1032	ND	100	66-130	9.58	30	
1,3-Dichlorobenzene (m-Dichlorobenzene)	942	µg/kg	43.8	1032	ND	91.2	78-121	10.1	30	
1,3-Dichloropropene	1630	µg/kg	87.7	2064	ND	78.9	62-124	12.5	30	
1,4-Dichlorobenzene (p-Dichlorobenzene)	944	µg/kg	43.8	1032	ND	91.4	78-122	9.33	30	
2-Butanone (Methyl ethyl ketone, MEK)	1130	µg/kg	292	1032	ND	110	47-164	10.8	30	
2-Hexanone	1100	µg/kg	43.8	1032	ND	107	70-137	4.29	30	
4-Methyl-2-pentanone (MIBK)	1690	µg/kg	43.8	1032	ND	164	57-200	6.38	30	
Acetone	1130	µg/kg	146	1032	ND	109	52-190	0.0914	30	
Benzene	1090	µg/kg	43.8	1032	ND	106	78-122	4.40	30	
Bromochloromethane	1080	µg/kg	43.8	1032	ND	105	68-130	16.1	30	
Bromodichloromethane	904	µg/kg	43.8	1032	ND	87.6	75-125	12.4	30	
Bromoform	800	µg/kg	43.8	1032	ND	77.6	59-120	5.70	30	
Carbon disulfide	844	µg/kg	43.8	1032	ND	81.8	60-163	11.8	30	
Carbon tetrachloride	1120	µg/kg	43.8	1032	ND	108	69-123	11.8	30	
Chlorobenzene	992	µg/kg	43.8	1032	ND	96.2	79-120	7.39	30	
Chlorodibromomethane	866	µg/kg	43.8	1032	ND	83.9	57-123	15.5	30	
Chloroethane (Ethyl chloride)	1190	µg/kg	146	1032	ND	115	38-132	1.89	30	
Chloroform	986	µg/kg	43.8	1032	ND	95.6	72-122	10.6	30	
cis & trans-1,2-Dichloroethene	2060	µg/kg	87.7	2064	ND	100	72-127	14.0	30	
cis-1,2-Dichloroethylene	1080	µg/kg	43.8	1032	ND	104	74-125	14.2	30	
cis-1,3-Dichloropropene	864	µg/kg	43.8	1032	ND	83.7	62-124	10.4	30	
Dichlorodifluoromethane (Freon-12)	1240	µg/kg	146	1032	ND	120	28-137	8.28	30	
Ethylbenzene	1040	µg/kg	43.8	1032	ND	101	75-121	6.34	30	
Isopropylbenzene	1040	µg/kg	43.8	1032	ND	100	74-121	8.80	30	
m+p-Xylene	2080	µg/kg	87.7	2064	ND	101	67-129	5.79	30	
Methyl acetate	1350	µg/kg	365	1032	ND	131	61-125	8.75	30	S
Methyl bromide (Bromomethane)	1070	µg/kg	146	1032	ND	103	31-169	9.68	30	
Methyl chloride (Chloromethane)	1240	µg/kg	146	1032	ND	121	24-119	6.19	30	S
Methyl tert-butyl ether (MTBE)	1060	µg/kg	43.8	1032	ND	103	79-139	6.86	30	
Methylene chloride (Dichloromethane)	1100	µg/kg	365	1032	ND	106	62-135	7.66	30	
o-Xylene	1070	µg/kg	43.8	1032	ND	104	75-120	10.2	30	
Styrene	1010	µg/kg	43.8	1032	ND	98.2	74-126	8.65	30	
Tetrachloroethylene (Perchloroethylene)	1070	µg/kg	43.8	1032	ND	104	76-128	11.6	30	
Toluene	1030	µg/kg	43.8	1032	ND	99.4	76-120	3.74	30	
Total Xylene	3150	µg/kg	132	3096	ND	102	67-129	7.26	30	
trans-1,2-Dichloroethylene	989	µg/kg	43.8	1032	ND	95.8	72-127	13.8	30	
trans-1,3-Dichloropropylene	765	µg/kg	43.8	1032	ND	74.1	66-120	14.9	30	
Trichloroethene (Trichloroethylene)	968	µg/kg	43.8	1032	ND	93.8	75-122	7.75	30	
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	759	µg/kg	43.8	1032	ND	73.6	51-115	10.4	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2157395

Work Order: HN2511317
Date Collected: 08/12/25 14:25
Date Received: 08/13/25 08:00
Run ID: 3431242

MSD	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2157395-006
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Method: EPA 8260D **Dilution:** 1 **Analysis Date:** 08/23/25 04:19
Prep Date: 08/18/25 14:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Vinyl chloride (Chloroethene)	1290	µg/kg	43.8	1032	ND	125	43-128	6.34	30	
Surr: 1,2-Dichloroethane-d4	1110	µg/kg		1032		107	80-120	5.84	30	
Surr: 4-Bromofluorobenzene	1040	µg/kg		1032		100	80-120	1.48	30	
Surr: Dibromofluoromethane	963	µg/kg		1032		93.4	80-120	1.75	30	
Surr: Toluene-d8	1010	µg/kg		1032		97.9	80-120	0.563	30	

The following samples were analyzed in this batch: HN2511317-001, HN2511317-002, HN2511317-003



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November 18, 2025

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

Re: **DETR0060**

Date Received: **10/14/2025**
Work Order: **HN2515187**
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

Kathy Jones-Gronda
/S/ KATHY JONES-GRONDA

Project Manager



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

Work Order: HN2515187
Date Received: 14-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 14-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.

WorkOrder: HN2515187

Analytical report revised to include the addition of TCLP Lead. This replaces report dated 10/22/2025.

SAMPLE SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Workorder: HN2515187

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2515187-001	11118 Whithorn	SOIL/SOLID	10/13/25 10:24	10/14/25 07:00



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	1118 Whithorn				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	montri@manniksmithgroup.com	e-Mail Address					I							
							J							

Environmental Division
Holland
Work Order Reference
HN2515187



Telephone : +1 616 399 6070

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	Hold
1	1118 Whithorn	10/13/25	10:24	Soil		2	X				
2											
3											
4											
5											
6											
7											
8											
9											
10											

Sampler(s): Please Print & Sign <i>Shannon Maczmarek</i>		Shipment Method:		Required Turnaround Time: ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour		Results Due Date:	
Relinquished by: <i>Shannon Maczmarek</i>	Date: 10/13/25	Time: 1547	Received by: <i>Colin</i>		Notes:		
Relinquished by: QS	Date: 10/14/25	Time: 0700	Received by (Laboratory): Bouttaugh H 10/14/25 0700		Cooler Temp. 127 3.7C		
Logged by (Laboratory): BH	Date: 10/14/25	Time: 0941	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 9-5035						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 Sample Receiving Checklist

Received by:

Brittany H

Date/Time:

10/14/25 0700

Carrier Name:

GS

Shipping container/cooler in good condition?

☒ Yes / No / Not Present

Custody seals intact on shipping container/cooler?

Yes / No / ☒ Not Present

Custody seals intact on sample bottles?

Yes / No / ☒ Not Present

Chain of Custody present?

☒ Yes / No

COC signed when relinquished and received?

☒ Yes / No

COC agrees with sample labels?

☒ Yes / No

Samples in proper container/bottle?

☒ Yes / No

Sample containers intact?

☒ Yes / No

Sufficient sample volume for indicated test?

☒ Yes / No

All samples received within holding time?

☒ Yes / No

Container/Temp Blank temperature in compliance?

☒ Yes / No

Temperature(s) (°C):

3.7/3.7c

Thermometer(s):

IR7

Sample(s) received on ice?

☒ Yes / No

Matrix/Matrices:

Soil

Cooler(s)/Kit(s):

1

Date/Time sample(s) sent to storage:

10/14/25 0941

Water – VOA vials have zero headspace?

Yes / No / No Vials

Water – pH acceptable upon receipt?

Yes / No / N/A

pH strip lot #: _____

< 2 _____

> 12 _____

Other _____

pH adjusted (note adjustments below)?

Yes / No / N/A

pH adjusted by:

Login Notes:

REPORT QUALIFIERS AND DEFINITIONS

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

Holland Laboratory 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: HN2515187

Sample Name: 11118 Whithorn
Laboratory Code: HN2515187-001
Sample Matrix: SOIL/SOLID

Date Collected: 10/13/25
Date Received: 10/14/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 6020B	EPA 3015A	001-AD	2281438	Chloe Patrick	3599113	Denise Coffey

Analytical Report



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

Work Order: HN2515187
Date Collected: 10/13/25 10:24
Date Received: 10/14/25 07:00

CLIENT ID: 11118 Whithorn	Lab ID: HN2515187-001
----------------------------------	------------------------------

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	10/17/25 21:15	10/17/25 11:56
Lead	EPA 6020B	<0.00220	U	mg/L	0.0499	1	10/17/25 21:15	10/17/25 11:56

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2281438

Work Order: HN2515187
Date Collected: NA
Date Received: NA
Run ID: 3599113

TCLP Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2281438-001
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 10/17/25 21:08
Prep Date: 10/17/25 11:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	<0.00190	mg/L	0.0499							U
Lead	<0.00220	mg/L	0.0499							U

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2281438-002
------------	---	-------------------------------

Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 10/17/25 21:10
Prep Date: 10/17/25 11:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	1.07	mg/L	0.0499	1		107	80-120			
Lead	1.07	mg/L	0.0499	1		107	80-120			

MS	CLIENT ID: 11118 Whithorn	Lab ID: QC-2281438-004
-----------	----------------------------------	-------------------------------

Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 10/17/25 21:17
Prep Date: 10/17/25 11:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	1.07	mg/L	0.0499	1	<0.00190	107	75-125			
Lead	1.05	mg/L	0.0499	1	<0.00220	105	75-125			

MSD	CLIENT ID: 11118 Whithorn	Lab ID: QC-2281438-005
------------	----------------------------------	-------------------------------

Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 10/17/25 21:19
Prep Date: 10/17/25 11:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	1.10	mg/L	0.0499	1	<0.00190	110	75-125	3.08	20	
Lead	1.06	mg/L	0.0499	1	<0.00220	106	75-125	0.676	20	

The following samples were analyzed in this batch: HN2515187-001

APPENDIX F
AMENDED LABORATORY ANALYTICAL DATA REPORT





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October 31, 2025

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

Re: **11118_Whithorn**

Date Received: **08/13/2025**
Work Order: **HN2511317**
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: 11118_Whithorn

Work Order: HN2511317
Date Received: 13-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 13-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.

Organics

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

Run ID: 3404198

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: 1,1-Dichloroethylene; 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113); 1,2,3-Trichlorobenzene

Run ID: 3411029

The LCS recovery was below the lower control limit. Instrument sensitivity was verified as sufficient through the analysis of a low-level standard. The following non-detects are reported without qualification: Methyl acetate

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 following analytes failed calibration refit conditions. All samples in this batch were non-detect. No qualification is necessary for these analytes: Chloroethane

Run ID: 3431242

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

The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: trans-1,3-dichloroethene

The Continuing Calibration Verification did not meet acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: Chloromethane, Dichlorodifluoromethane

Metals

EPA 6020B-3050B-S

Run ID: 3410807

MSD recoveries exceeded the upper control limit. Corresponding sample results may be biased high for the analyte(s): Barium, Chromium, Zinc

The RPD between the Matrix Spike and its duplicate exceeded the control maximum. Corresponding sample results should be considered estimated: Barium

Run ID: 3410807

HN2511317-003: Reporting limits are elevated due to dilution for high concentrations of non-target analytes: See Analytical Report

Run ID: 3410824

HN2511317-001: Reporting limits are elevated due to dilution for high concentrations of non-target analytes: See Analytical Report

HN2511317-002: Reporting limits are elevated due to dilution for high concentrations of non-target analytes: See Analytical Report

Run ID: 3413394

HN2511317-003: Reporting limits are elevated due to dilution for high concentrations of non-target analytes: See Analytical Report

Inorganics

EPA 9056A-S (High)

Run ID: 3405747

MS/MSD values were outside the upper limit of calibration. Processed at equivalent dilution level as the parent: Chloride

HN2511317-001: MS/MSD recoveries were below the lower control limit. The corresponding result in the parent sample may be biased low for the following analyte(s): Sulfate

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: 11118 SB01 (1-2)	Lab ID: HN2511317-001
-----------------------------	-----------------------

Analyte	Results	Flag	MRL	Units	Method
Arsenic	5.90		3.46	mg/kg	EPA 6020B
Barium	90.8		3.46	mg/kg	EPA 6020B
Chromium	13.4		3.46	mg/kg	EPA 6020B
Copper	21.0		3.46	mg/kg	EPA 6020B
Lead	258		3.46	mg/kg	EPA 6020B
Mercury	0.0219		0.0200	mg/kg	EPA 7471B
Percent Moisture	11.4		0.1	%	EPA 3550C
Subcontract Analysis	See attached.			-	EPA 8081B
Subcontract Analysis	See attached.			-	EPA 8082A
Subcontract Analysis	See attached.			-	EPA 8151A
Subcontract Analysis	See attached.			-	EPA 8270E
Zinc	179		6.92	mg/kg	EPA 6020B

CLIENT ID: 11118 SB02 (3-4)	Lab ID: HN2511317-002
-----------------------------	-----------------------

Analyte	Results	Flag	MRL	Units	Method
Arsenic	3.40		2.92	mg/kg	EPA 6020B
Barium	6.33		2.92	mg/kg	EPA 6020B
Chromium	4.03		2.92	mg/kg	EPA 6020B
Copper	5.47		2.92	mg/kg	EPA 6020B
Lead	2.99		2.92	mg/kg	EPA 6020B
Percent Moisture	5.4		0.1	%	EPA 3550C
Subcontract Analysis	See attached.			-	EPA 8081B
Subcontract Analysis	See attached.			-	EPA 8082A
Subcontract Analysis	See attached.			-	EPA 8151A
Subcontract Analysis	See attached.			-	EPA 8270E
Zinc	14.5		5.83	mg/kg	EPA 6020B

CLIENT ID: 11118 SB03 (5-6)	Lab ID: HN2511317-003
-----------------------------	-----------------------

Analyte	Results	Flag	MRL	Units	Method
Barium	15.3	S	3.52	mg/kg	EPA 6020B
Chloride	14.6		12.3	mg/kg	EPA 9056A
Chromium	5.97	S	3.52	mg/kg	EPA 6020B
Copper	5.49		3.52	mg/kg	EPA 6020B
Percent Moisture	17.4		0.1	%	EPA 3550C
Subcontract Analysis	See attached.			-	EPA 8081B
Subcontract Analysis	See attached.			-	EPA 8082A
Subcontract Analysis	See attached.			-	EPA 8151A
Subcontract Analysis	See attached.			-	EPA 8270E
Zinc	19.0	S	7.03	mg/kg	EPA 6020B

SAMPLE SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Workorder: HN2511317

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2511317-001	11118 SB01 (1-2)	SOIL/SOLID	08/12/25 14:05	08/13/25 08:00
HN2511317-002	11118 SB02 (3-4)	SOIL/SOLID	08/12/25 14:12	08/13/25 08:00
HN2511317-003	11118 SB03 (5-6)	SOIL/SOLID	08/12/25 14:25	08/13/25 08:00

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: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:05
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB01 (1-2)	Lab ID: HN2511317-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	11.4		%	0.1	1	08/15/25 15:24	NA
Chloride	EPA 9056A	ND		mg/kg	11.4	1	08/15/25 18:03	08/15/25 15:56
Metals								
Arsenic	EPA 6020B	5.90		mg/kg	3.46	10	08/18/25 21:49	08/18/25 10:23
Barium	EPA 6020B	90.8		mg/kg	3.46	10	08/18/25 21:49	08/18/25 10:23
Cadmium	EPA 6020B	ND		mg/kg	1.38	10	08/18/25 21:49	08/18/25 10:23
Chromium	EPA 6020B	13.4		mg/kg	3.46	10	08/18/25 21:49	08/18/25 10:23
Copper	EPA 6020B	21.0		mg/kg	3.46	10	08/19/25 18:00	08/18/25 10:23
Lead	EPA 6020B	258		mg/kg	3.46	10	08/18/25 21:49	08/18/25 10:23
Selenium	EPA 6020B	ND		mg/kg	3.46	10	08/18/25 21:49	08/18/25 10:23
Silver	EPA 6020B	ND	V	mg/kg	3.46	10	08/18/25 21:49	08/18/25 10:23
Zinc	EPA 6020B	179		mg/kg	6.92	10	08/18/25 21:49	08/18/25 10:23
Mercury	EPA 7471B	0.0219		mg/kg	0.0200	1	08/18/25 11:04	08/15/25 14:35
Subcontracted Parameters								
Subcontract Analysis	EPA 8081B	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8082A	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8151A	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8270E	See attached.		-		1	09/02/25 15:15	NA
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:05
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB01 (1-2)	Lab ID: HN2511317-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	77.7	1	08/18/25 16:27	08/18/25 14:26
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	259	1	08/18/25 16:27	08/18/25 14:26
2-Hexanone	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Acetone	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
Benzene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Bromochloromethane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Bromodichloromethane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Bromoform	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Carbon disulfide	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Carbon tetrachloride	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Chlorobenzene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Chlorodibromomethane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
Chloroform	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	77.7	1	08/18/25 16:27	08/18/25 14:26
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Cyclohexane	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:05
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB01 (1-2)	Lab ID: HN2511317-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Ethylbenzene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Isopropylbenzene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
m+p-Xylene	EPA 8260D	ND		µg/kg	77.7	1	08/18/25 16:27	08/18/25 14:26
Methyl acetate	EPA 8260D	ND		µg/kg	324	1	08/18/25 16:27	08/18/25 14:26
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	129	1	08/18/25 16:27	08/18/25 14:26
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Methylcyclohexane	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	324	1	08/18/25 16:27	08/18/25 14:26
o-Xylene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Styrene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Toluene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Total Xylene	EPA 8260D	ND		µg/kg	116	1	08/18/25 16:27	08/18/25 14:26
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
trans-1,3- Dichloropropylene	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	38.8	1	08/18/25 16:27	08/18/25 14:26
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	94.7		%REC	80-120	1	08/18/25 16:27	08/18/25 14:26
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	93.2		%REC	80-120	1	08/15/25 10:22	08/13/25 11:17
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	92.8		%REC	80-120	1	08/18/25 16:27	08/18/25 14:26
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	101		%REC	80-120	1	08/18/25 16:27	08/18/25 14:26

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:12
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB02 (3-4) **Lab ID: HN2511317-002**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	5.4		%	0.1	1	08/15/25 15:24	NA
Chloride	EPA 9056A	ND		mg/kg	10.7	1	08/15/25 18:32	08/15/25 15:56
Metals								
Arsenic	EPA 6020B	3.40		mg/kg	2.92	10	08/18/25 21:51	08/18/25 10:23
Barium	EPA 6020B	6.33		mg/kg	2.92	10	08/18/25 21:51	08/18/25 10:23
Cadmium	EPA 6020B	ND		mg/kg	1.17	10	08/18/25 21:51	08/18/25 10:23
Chromium	EPA 6020B	4.03		mg/kg	2.92	10	08/18/25 21:51	08/18/25 10:23
Copper	EPA 6020B	5.47		mg/kg	2.92	10	08/19/25 18:02	08/18/25 10:23
Lead	EPA 6020B	2.99		mg/kg	2.92	10	08/18/25 21:51	08/18/25 10:23
Selenium	EPA 6020B	ND		mg/kg	2.92	10	08/18/25 21:51	08/18/25 10:23
Silver	EPA 6020B	ND	V	mg/kg	2.92	10	08/18/25 21:51	08/18/25 10:23
Zinc	EPA 6020B	14.5		mg/kg	5.83	10	08/18/25 21:51	08/18/25 10:23
Mercury	EPA 7471B	ND		mg/kg	0.0200	1	08/18/25 11:06	08/15/25 14:35
Subcontracted Parameters								
Subcontract Analysis	EPA 8081B	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8082A	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8151A	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8270E	See attached.		-		1	09/02/25 15:15	NA
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:12
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB02 (3-4)	Lab ID: HN2511317-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	68.2	1	08/18/25 16:27	08/18/25 14:26
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	227	1	08/18/25 16:27	08/18/25 14:26
2-Hexanone	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Acetone	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
Benzene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Bromochloromethane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Bromodichloromethane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Bromoform	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Carbon disulfide	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Carbon tetrachloride	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Chlorobenzene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Chlorodibromomethane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
Chloroform	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	68.2	1	08/18/25 16:27	08/18/25 14:26
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Cyclohexane	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:12
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB02 (3-4)	Lab ID: HN2511317-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Ethylbenzene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Isopropylbenzene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
m+p-Xylene	EPA 8260D	ND		µg/kg	68.2	1	08/18/25 16:27	08/18/25 14:26
Methyl acetate	EPA 8260D	ND		µg/kg	284	1	08/18/25 16:27	08/18/25 14:26
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	114	1	08/18/25 16:27	08/18/25 14:26
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Methylcyclohexane	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	284	1	08/18/25 16:27	08/18/25 14:26
o-Xylene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Styrene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Toluene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Total Xylene	EPA 8260D	ND		µg/kg	102	1	08/18/25 16:27	08/18/25 14:26
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	34.1	1	08/18/25 16:27	08/18/25 14:26
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	97.7		%REC	80-120	1	08/18/25 16:27	08/18/25 14:26
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	93.3		%REC	80-120	1	08/18/25 16:27	08/18/25 14:26
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	89.0		%REC	80-120	1	08/18/25 16:27	08/18/25 14:26
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	101		%REC	80-120	1	08/15/25 10:38	08/13/25 11:17

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:25
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB03 (5-6)	Lab ID: HN2511317-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	17.4		%	0.1	1	08/15/25 15:24	NA
Chloride	EPA 9056A	14.6		mg/kg	12.3	1	08/15/25 18:42	08/15/25 15:56
Metals								
Arsenic	EPA 6020B	ND		mg/kg	3.52	10	08/18/25 20:33	08/18/25 09:54
Barium	EPA 6020B	15.3	S	mg/kg	3.52	10	08/18/25 20:33	08/18/25 09:54
Cadmium	EPA 6020B	ND		mg/kg	1.41	10	08/18/25 20:33	08/18/25 09:54
Chromium	EPA 6020B	5.97	S	mg/kg	3.52	10	08/18/25 20:33	08/18/25 09:54
Copper	EPA 6020B	5.49		mg/kg	3.52	10	08/19/25 16:57	08/18/25 09:54
Lead	EPA 6020B	ND		mg/kg	3.52	10	08/18/25 20:33	08/18/25 09:54
Selenium	EPA 6020B	ND		mg/kg	3.52	10	08/18/25 20:33	08/18/25 09:54
Silver	EPA 6020B	ND		mg/kg	3.52	10	08/19/25 16:57	08/18/25 09:54
Zinc	EPA 6020B	19.0	S	mg/kg	7.03	10	08/18/25 20:33	08/18/25 09:54
Mercury	EPA 7471B	ND		mg/kg	0.0214	1	08/18/25 11:07	08/15/25 14:35
Subcontracted Parameters								
Subcontract Analysis	EPA 8081B	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8082A	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8151A	See attached.		-		1	09/02/25 15:15	NA
Subcontract Analysis	EPA 8270E	See attached.		-		1	09/02/25 15:15	NA
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:25
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB03 (5-6)	Lab ID: HN2511317-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	87.7	1	08/23/25 03:47	08/18/25 14:26
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	292	1	08/23/25 03:47	08/18/25 14:26
2-Hexanone	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Acetone	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
Benzene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Bromochloromethane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Bromodichloromethane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Bromoform	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Carbon disulfide	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Carbon tetrachloride	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Chlorobenzene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Chlorodibromomethane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
Chloroform	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	87.7	1	08/23/25 03:47	08/18/25 14:26
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Cyclohexane	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID

Work Order: HN2511317
Date Collected: 08/12/25 14:25
Date Received: 08/13/25 08:00

CLIENT ID: 11118 SB03 (5-6)	Lab ID: HN2511317-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Ethylbenzene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Isopropylbenzene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
m+p-Xylene	EPA 8260D	ND		µg/kg	87.7	1	08/23/25 03:47	08/18/25 14:26
Methyl acetate	EPA 8260D	ND	S	µg/kg	365	1	08/23/25 03:47	08/18/25 14:26
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
Methyl chloride (Chloromethane)	EPA 8260D	ND	S	µg/kg	146	1	08/23/25 03:47	08/18/25 14:26
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Methylcyclohexane	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	365	1	08/23/25 03:47	08/18/25 14:26
o-Xylene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Styrene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Toluene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Total Xylene	EPA 8260D	ND		µg/kg	132	1	08/23/25 03:47	08/18/25 14:26
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
trans-1,3-Dichloropropylene	EPA 8260D	ND	S	µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	43.8	1	08/23/25 03:47	08/18/25 14:26
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	101		%REC	80-120	1	08/23/25 03:47	08/18/25 14:26
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	97.4		%REC	80-120	1	08/23/25 03:47	08/18/25 14:26
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	90.7		%REC	80-120	1	08/23/25 03:47	08/18/25 14:26
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	99.6		%REC	80-120	1	08/23/25 03:47	08/18/25 14:26



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2162233

Work Order: HN2511317
Date Collected: NA
Date Received: NA
Run ID: 3403230

General Chemistry Parameters

MB	CLIENT ID: Method Blank	Lab ID: QC-2162233-001
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 08/15/25 15:24
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-2162233-002
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 08/15/25 15:24
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			

DUP	CLIENT ID: 11118 SB01 (1-2)	Lab ID: QC-2162233-004
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 08/15/25 15:24
Prep Date: NA

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	10.9	%	0.1		11.4			4.56	10	

The following samples were analyzed in this batch: HN2511317-001, HN2511317-002, HN2511317-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2163170

Work Order: HN2511317
Date Collected: NA
Date Received: NA
Run ID: 3405747

General Chemistry Parameters

MB	CLIENT ID: Method Blank	Lab ID: QC-2163170-001
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 08/15/25 17:43
Prep Date: 08/15/25 15:57

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-2163170-002
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 08/15/25 17:53
Prep Date: 08/15/25 15:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	96.0	mg/kg	10.0	100		96.0	87-110			

MS	CLIENT ID: 11118 SB01 (1-2)	Lab ID: QC-2163170-004
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 08/15/25 18:13
Prep Date: 08/15/25 15:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	97.8	mg/kg	11.2	99.602	<11.4	91.6	87-110			

MSD	CLIENT ID: 11118 SB01 (1-2)	Lab ID: QC-2163170-005
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 08/15/25 18:22
Prep Date: 08/15/25 15:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	100	mg/kg	11.2	99.602	<11.4	93.8	87-110	2.21	15	

The following samples were analyzed in this batch: HN2511317-001, HN2511317-002, HN2511317-003



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2162145

Work Order: HN2511317
Date Collected: NA
Date Received: NA
Run ID: 3405106

Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2162145-001
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 08/18/25 10:38
Prep Date: 08/15/25 14:36

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-2162145-002
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 08/18/25 10:39
Prep Date: 08/15/25 14:36

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.172	mg/kg	0.0200	0.1665		104	80-120			

The following samples were analyzed in this batch: HN2511317-001, HN2511317-002, HN2511317-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2165850

Work Order: HN2511317
Date Collected: NA
Date Received: NA
Run ID: 3410824

Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2165850-001
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/18/25 21:24
Prep Date: 08/18/25 10:24

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-2165850-002
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/18/25 21:26
Prep Date: 08/18/25 10:24

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	4.77	mg/kg	0.250	5		95.3	80-120			
Barium	4.50	mg/kg	0.250	5		90.1	80-120			
Cadmium	4.82	mg/kg	0.100	5		96.4	80-120			
Chromium	4.99	mg/kg	0.250	5		99.7	80-120			
Lead	4.80	mg/kg	0.250	5		96.0	80-120			
Selenium	4.77	mg/kg	0.250	5		95.4	80-120			
Zinc	5.18	mg/kg	0.500	5		104	80-120			

The following samples were analyzed in this batch: HN2511317-001, HN2511317-002

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2165850

Work Order: HN2511317
Date Collected: NA
Date Received: NA
Run ID: 3413394

Metals

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2165850-002
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/19/25 17:42
Prep Date: 08/18/25 10:24

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Copper	4.99	mg/kg	0.250	5		99.8	80-120			
Silver	4.84	mg/kg	0.250	5		96.9	80-120			

The following samples were analyzed in this batch: HN2511317-001, HN2511317-002, HN2511317-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2165859

Work Order: HN2511317
Date Collected: NA
Date Received: NA
Run ID: 3410807

Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2165859-001
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/18/25 20:30
Prep Date: 08/18/25 09:55

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-2165859-002
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/18/25 20:32
Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	4.62	mg/kg	0.250	5		92.4	80-120			
Barium	4.63	mg/kg	0.250	5		92.6	80-120			
Cadmium	5.04	mg/kg	0.100	5		101	80-120			
Chromium	4.91	mg/kg	0.250	5		98.2	80-120			
Lead	4.91	mg/kg	0.250	5		98.3	80-120			
Selenium	4.88	mg/kg	0.250	5		97.7	80-120			
Zinc	5.20	mg/kg	0.500	5		104	80-120			

MS	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2165859-004
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/18/25 20:35
Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	7.41	mg/kg	3.42	5.6497	<3.52	82.2	75-125			
Barium	19.5	mg/kg	3.42	5.6497	15.3	122	75-125			
Cadmium	5.50	mg/kg	1.37	5.6497	ND	96.5	75-125			
Chromium	11.1	mg/kg	3.42	5.6497	5.97	108	75-125			
Lead	7.76	mg/kg	3.42	5.6497	<3.52	90.3	75-125			
Selenium	5.10	mg/kg	3.42	5.6497	ND	90.1	75-125			
Zinc	22.4	mg/kg	6.84	5.6497	19.0	120	75-125			

MSD	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2165859-005
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/18/25 20:37
Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	8.93	mg/kg	3.46	5.7143	<3.52	108	75-125	18.6	20	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2165859

Work Order: HN2511317
Date Collected: NA
Date Received: NA
Run ID: 3410807

MSD	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2165859-005
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/18/25 20:37
Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Barium	34.0	mg/kg	3.46	5.7143	15.3	373	75-125	54.0	20	RS
Cadmium	5.62	mg/kg	1.38	5.7143	ND	97.6	75-125	2.26	20	
Chromium	13.3	mg/kg	3.46	5.7143	5.97	147	75-125	18.6	20	S
Lead	8.56	mg/kg	3.46	5.7143	<3.52	103	75-125	9.86	20	
Selenium	5.05	mg/kg	3.46	5.7143	ND	88.3	75-125	0.898	20	
Zinc	26.9	mg/kg	6.92	5.7143	19.0	197	75-125	18.3	20	S

PDS	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2165859-007
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/18/25 20:40
Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	57.1	mg/kg	3.52	58.072	<3.52	93.6	75-125			
Barium	64.2	mg/kg	3.52	58.072	15.3	88.7	75-125			
Cadmium	55.6	mg/kg	1.41	58.072	ND	95.7	75-125			
Chromium	61.6	mg/kg	3.52	58.072	5.97	97.5	75-125			
Lead	57.4	mg/kg	3.52	58.072	<3.52	94.2	75-125			
Selenium	52.6	mg/kg	3.52	58.072	ND	90.6	75-125			
Zinc	103	mg/kg	7.03	58.072	19.0	151	75-125			S

The following samples were analyzed in this batch: HN2511317-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2165859

Work Order: HN2511317
Date Collected: NA
Date Received: NA
Run ID: 3413394

Metals

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2165859-002
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/19/25 16:55
Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Copper	5.08	mg/kg	0.250	5		102	80-120			
Silver	5.07	mg/kg	0.250	5		101	80-120			

MS	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2165859-004
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/19/25 16:58
Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Copper	10.0	mg/kg	3.42	5.6497	5.49	97.4	75-125			
Silver	5.63	mg/kg	3.42	5.6497	ND	99.5	75-125			

MSD	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2165859-005
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/19/25 17:00
Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Copper	10.8	mg/kg	3.46	5.7143	5.49	110	75-125	7.39	20	
Silver	5.76	mg/kg	3.46	5.7143	ND	100	75-125	2.26	20	

PDS	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2165859-007
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/19/25 17:03
Prep Date: 08/18/25 09:55

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Copper	59.7	mg/kg	3.52	58.072	5.49	95.0	75-125			
Silver	53.4	mg/kg	3.52	58.072	ND	92.0	75-125			

The following samples were analyzed in this batch: HN2511317-001, HN2511317-002, HN2511317-003



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2157395

Work Order: HN2511317
Date Collected: 08/12/25 14:25
Date Received: 08/13/25 08:00
Run ID: 3431242

Volatile Organic Compounds by GC-MS

MS	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2157395-005
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/23/25 04:03

Prep Date: 08/18/25 14:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	829	µg/kg	43.8	1032	ND	80.3	75-121			
1,1,2,2-Tetrachloroethane	989	µg/kg	43.8	1032	ND	95.8	79-125			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	870	µg/kg	43.8	1032	ND	84.3	62-129			
1,1,2-Trichloroethane	890	µg/kg	43.8	1032	ND	86.2	80-123			
1,1-Dichloroethane	934	µg/kg	43.8	1032	ND	90.6	74-124			
1,1-Dichloroethylene	1030	µg/kg	43.8	1032	ND	99.5	68-131			
1,2,3-Trichlorobenzene	844	µg/kg	146	1032	ND	81.8	60-135			
1,2,3-Trichloropropane	918	µg/kg	43.8	1032	ND	89.0	77-121			
1,2,4-Trichlorobenzene	772	µg/kg	146	1032	ND	74.8	63-130			
1,2,4-Trimethylbenzene	930	µg/kg	43.8	1032	ND	90.2	64-126			
1,2-Dibromo-3-chloropropane (DBCP)	832	µg/kg	146	1032	ND	80.6	55-135			
1,2-Dibromoethane (EDB, Ethylene dibromide)	881	µg/kg	43.8	1032	ND	85.4	63-155			
1,2-Dichlorobenzene (o-Dichlorobenzene)	965	µg/kg	43.8	1032	ND	93.5	77-122			
1,2-Dichloroethane (Ethylene dichloride)	1020	µg/kg	146	1032	ND	98.4	70-130			
1,2-Dichloropropane	997	µg/kg	43.8	1032	ND	96.6	71-130			
1,3,5-Trimethylbenzene	938	µg/kg	146	1032	ND	91.0	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	851	µg/kg	43.8	1032	ND	82.4	78-121			
1,3-Dichloropropene	1440	µg/kg	87.7	2064	ND	69.6	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	860	µg/kg	43.8	1032	ND	83.3	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	1020	µg/kg	292	1032	ND	98.5	47-164			
2-Hexanone	1060	µg/kg	43.8	1032	ND	102	70-137			
4-Methyl-2-pentanone (MIBK)	1590	µg/kg	43.8	1032	ND	154	57-200			
Acetone	1130	µg/kg	146	1032	ND	109	52-190			
Benzene	1040	µg/kg	43.8	1032	ND	101	78-122			
Bromochloromethane	923	µg/kg	43.8	1032	ND	89.4	68-130			
Bromodichloromethane	799	µg/kg	43.8	1032	ND	77.4	75-125			
Bromoform	756	µg/kg	43.8	1032	ND	73.2	59-120			
Carbon disulfide	749	µg/kg	43.8	1032	ND	72.6	60-163			
Carbon tetrachloride	994	µg/kg	43.8	1032	ND	96.4	69-123			
Chlorobenzene	922	µg/kg	43.8	1032	ND	89.3	79-120			
Chlorodibromomethane	741	µg/kg	43.8	1032	ND	71.8	57-123			
Chloroethane (Ethyl chloride)	1160	µg/kg	146	1032	ND	113	38-132			
Chloroform	888	µg/kg	43.8	1032	ND	86.0	72-122			
cis & trans-1,2-Dichloroethene	1800	µg/kg	87.7	2064	ND	87.0	72-127			
cis-1,2-Dichloroethylene	934	µg/kg	43.8	1032	ND	90.5	74-125			
cis-1,3-Dichloropropene	778	µg/kg	43.8	1032	ND	75.4	62-124			
Dichlorodifluoromethane (Freon-12)	1140	µg/kg	146	1032	ND	110	28-137			
Ethylbenzene	977	µg/kg	43.8	1032	ND	94.6	75-121			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2157395

Work Order: HN2511317
Date Collected: 08/12/25 14:25
Date Received: 08/13/25 08:00
Run ID: 3431242

MS	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2157395-005
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/23/25 04:03

Prep Date: 08/18/25 14:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Isopropylbenzene	948	µg/kg	43.8	1032	ND	91.8	74-121			
m+p-Xylene	1960	µg/kg	87.7	2064	ND	95.2	67-129			
Methyl acetate	1240	µg/kg	365	1032	ND	120	61-125			
Methyl bromide (Bromomethane)	969	µg/kg	146	1032	ND	93.9	31-169			
Methyl chloride (Chloromethane)	1170	µg/kg	146	1032	ND	113	24-119			
Methyl tert-butyl ether (MTBE)	995	µg/kg	43.8	1032	ND	96.4	79-139			
Methylene chloride (Dichloromethane)	1020	µg/kg	365	1032	ND	98.6	62-135			
o-Xylene	966	µg/kg	43.8	1032	ND	93.6	75-120			
Styrene	930	µg/kg	43.8	1032	ND	90.1	74-126			
Tetrachloroethylene (Perchloroethylene)	1200	µg/kg	43.8	1032	ND	116	76-128			
Toluene	989	µg/kg	43.8	1032	ND	95.8	76-120			
Total Xylene	2930	µg/kg	132	3096	ND	94.7	67-129			
trans-1,2-Dichloroethylene	861	µg/kg	43.8	1032	ND	83.4	72-127			
trans-1,3-Dichloropropylene	658	µg/kg	43.8	1032	ND	63.8	66-120			S
Trichloroethene (Trichloroethylene)	896	µg/kg	43.8	1032	ND	86.8	75-122			
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	684	µg/kg	43.8	1032	ND	66.2	51-115			
Vinyl chloride (Chloroethene)	1210	µg/kg	43.8	1032	ND	118	43-128			
Surr: 1,2-Dichloroethane-d4	1040	µg/kg		1032		101	80-120			
Surr: 4-Bromofluorobenzene	1050	µg/kg		1032		102	80-120			
Surr: Dibromofluoromethane	980	µg/kg		1032		95.0	80-120			
Surr: Toluene-d8	1000	µg/kg		1032		97.4	80-120			

MSD	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2157395-006
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/23/25 04:19

Prep Date: 08/18/25 14:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	927	µg/kg	43.8	1032	ND	89.8	75-121	11.2	30	
1,1,2,2-Tetrachloroethane	1070	µg/kg	43.8	1032	ND	104	79-125	7.97	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	953	µg/kg	43.8	1032	ND	92.4	62-129	9.11	30	
1,1,2-Trichloroethane	977	µg/kg	43.8	1032	ND	94.7	80-123	9.40	30	
1,1-Dichloroethane	1050	µg/kg	43.8	1032	ND	102	74-124	12.1	30	
1,1-Dichloroethylene	1110	µg/kg	43.8	1032	ND	108	68-131	8.15	30	
1,2,3-Trichlorobenzene	968	µg/kg	146	1032	ND	93.8	60-135	13.7	30	
1,2,3-Trichloropropane	985	µg/kg	43.8	1032	ND	95.4	77-121	6.99	30	
1,2,4-Trichlorobenzene	894	µg/kg	146	1032	ND	86.6	63-130	14.6	30	
1,2,4-Trimethylbenzene	990	µg/kg	43.8	1032	ND	96.0	64-126	6.23	30	
1,2-Dibromo-3-chloropropane (DBCP)	818	µg/kg	146	1032	ND	79.3	55-135	1.69	30	
1,2-Dibromoethane (EDB, Ethylene dibromide)	911	µg/kg	43.8	1032	ND	88.2	63-155	3.34	30	
1,2-Dichlorobenzene (o-Dichlorobenzene)	1030	µg/kg	43.8	1032	ND	99.4	77-122	6.17	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2157395

Work Order: HN2511317
Date Collected: 08/12/25 14:25
Date Received: 08/13/25 08:00
Run ID: 3431242

MSD	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2157395-006
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/23/25 04:19

Prep Date: 08/18/25 14:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,2-Dichloroethane (Ethylene dichloride)	1090	µg/kg	146	1032	ND	106	70-130	7.34	30	
1,2-Dichloropropane	1030	µg/kg	43.8	1032	ND	99.7	71-130	3.11	30	
1,3,5-Trimethylbenzene	1030	µg/kg	146	1032	ND	100	66-130	9.58	30	
1,3-Dichlorobenzene (m-Dichlorobenzene)	942	µg/kg	43.8	1032	ND	91.2	78-121	10.1	30	
1,3-Dichloropropene	1630	µg/kg	87.7	2064	ND	78.9	62-124	12.5	30	
1,4-Dichlorobenzene (p-Dichlorobenzene)	944	µg/kg	43.8	1032	ND	91.4	78-122	9.33	30	
2-Butanone (Methyl ethyl ketone, MEK)	1130	µg/kg	292	1032	ND	110	47-164	10.8	30	
2-Hexanone	1100	µg/kg	43.8	1032	ND	107	70-137	4.29	30	
4-Methyl-2-pentanone (MIBK)	1690	µg/kg	43.8	1032	ND	164	57-200	6.38	30	
Acetone	1130	µg/kg	146	1032	ND	109	52-190	0.0914	30	
Benzene	1090	µg/kg	43.8	1032	ND	106	78-122	4.40	30	
Bromochloromethane	1080	µg/kg	43.8	1032	ND	105	68-130	16.1	30	
Bromodichloromethane	904	µg/kg	43.8	1032	ND	87.6	75-125	12.4	30	
Bromoform	800	µg/kg	43.8	1032	ND	77.6	59-120	5.70	30	
Carbon disulfide	844	µg/kg	43.8	1032	ND	81.8	60-163	11.8	30	
Carbon tetrachloride	1120	µg/kg	43.8	1032	ND	108	69-123	11.8	30	
Chlorobenzene	992	µg/kg	43.8	1032	ND	96.2	79-120	7.39	30	
Chlorodibromomethane	866	µg/kg	43.8	1032	ND	83.9	57-123	15.5	30	
Chloroethane (Ethyl chloride)	1190	µg/kg	146	1032	ND	115	38-132	1.89	30	
Chloroform	986	µg/kg	43.8	1032	ND	95.6	72-122	10.6	30	
cis & trans-1,2-Dichloroethene	2060	µg/kg	87.7	2064	ND	100	72-127	14.0	30	
cis-1,2-Dichloroethylene	1080	µg/kg	43.8	1032	ND	104	74-125	14.2	30	
cis-1,3-Dichloropropene	864	µg/kg	43.8	1032	ND	83.7	62-124	10.4	30	
Dichlorodifluoromethane (Freon-12)	1240	µg/kg	146	1032	ND	120	28-137	8.28	30	
Ethylbenzene	1040	µg/kg	43.8	1032	ND	101	75-121	6.34	30	
Isopropylbenzene	1040	µg/kg	43.8	1032	ND	100	74-121	8.80	30	
m+p-Xylene	2080	µg/kg	87.7	2064	ND	101	67-129	5.79	30	
Methyl acetate	1350	µg/kg	365	1032	ND	131	61-125	8.75	30	S
Methyl bromide (Bromomethane)	1070	µg/kg	146	1032	ND	103	31-169	9.68	30	
Methyl chloride (Chloromethane)	1240	µg/kg	146	1032	ND	121	24-119	6.19	30	S
Methyl tert-butyl ether (MTBE)	1060	µg/kg	43.8	1032	ND	103	79-139	6.86	30	
Methylene chloride (Dichloromethane)	1100	µg/kg	365	1032	ND	106	62-135	7.66	30	
o-Xylene	1070	µg/kg	43.8	1032	ND	104	75-120	10.2	30	
Styrene	1010	µg/kg	43.8	1032	ND	98.2	74-126	8.65	30	
Tetrachloroethylene (Perchloroethylene)	1070	µg/kg	43.8	1032	ND	104	76-128	11.6	30	
Toluene	1030	µg/kg	43.8	1032	ND	99.4	76-120	3.74	30	
Total Xylene	3150	µg/kg	132	3096	ND	102	67-129	7.26	30	
trans-1,2-Dichloroethylene	989	µg/kg	43.8	1032	ND	95.8	72-127	13.8	30	
trans-1,3-Dichloropropylene	765	µg/kg	43.8	1032	ND	74.1	66-120	14.9	30	
Trichloroethene (Trichloroethylene)	968	µg/kg	43.8	1032	ND	93.8	75-122	7.75	30	
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	759	µg/kg	43.8	1032	ND	73.6	51-115	10.4	30	



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn
Matrix: SOIL/SOLID
QC Lot: 2157395

Work Order: HN2511317
Date Collected: 08/12/25 14:25
Date Received: 08/13/25 08:00
Run ID: 3431242

MSD	CLIENT ID: 11118 SB03 (5-6)	Lab ID: QC-2157395-006
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/23/25 04:19

Prep Date: 08/18/25 14:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Vinyl chloride (Chloroethene)	1290	µg/kg	43.8	1032	ND	125	43-128	6.34	30	
Surr: 1,2-Dichloroethane-d4	1110	µg/kg		1032		107	80-120	5.84	30	
Surr: 4-Bromofluorobenzene	1040	µg/kg		1032		100	80-120	1.48	30	
Surr: Dibromofluoromethane	963	µg/kg		1032		93.4	80-120	1.75	30	
Surr: Toluene-d8	1010	µg/kg		1032		97.9	80-120	0.563	30	

The following samples were analyzed in this batch: HN2511317-001, HN2511317-002, HN2511317-003

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn

Work Order: HN2511317

Sample Name: 11118 SB01 (1-2) **Date Collected:** 08/12/25
Laboratory Code: HN2511317-001 **Date Received:** 08/13/25
Sample Matrix: SOIL/SOLID

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		001-AC	2162233		3403230	Everett Chudy
EPA 6020B	EPA 3050B	001-AC	2165850	Weston Kotecki	3410824	Dale Schipper
EPA 6020B	EPA 3050B	001-AC	2165850	Weston Kotecki	3413394	Dale Schipper
EPA 7471B	Method	001-AC	2162145	Maxx Richey	3405106	Dale Schipper
EPA 8081B		001-AD			3456160	Bill Carey
EPA 8082A		001-AD			3456160	Bill Carey
EPA 8151A		001-AD			3456160	Bill Carey
EPA 8260D	EPA 5035A	001-AA	2157395	Jonathan Vazquez	3404198	Dale Schipper
EPA 8260D	EPA 5035A	001-AA	2157395	Jonathan Vazquez	3404740	Dale Schipper
EPA 8260D	EPA 5035A	001-AA	2166541	Jonathan Vazquez	3411029	Dale Schipper
EPA 8270E		001-AD			3456160	Bill Carey
EPA 9056A	EPA 9056A	001-AC	2163170	Sage Hansen	3405747	Dale Schipper

Sample Name: 11118 SB02 (3-4) **Date Collected:** 08/12/25
Laboratory Code: HN2511317-002 **Date Received:** 08/13/25
Sample Matrix: SOIL/SOLID

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		002-AC	2162233		3403230	Everett Chudy
EPA 6020B	EPA 3050B	002-AC	2165850	Weston Kotecki	3410824	Dale Schipper
EPA 6020B	EPA 3050B	002-AC	2165850	Weston Kotecki	3413394	Dale Schipper
EPA 7471B	Method	002-AC	2162145	Maxx Richey	3405106	Dale Schipper
EPA 8081B		002-AD			3456160	Bill Carey
EPA 8082A		002-AD			3456160	Bill Carey
EPA 8151A		002-AD			3456160	Bill Carey
EPA 8260D	EPA 5035A	002-AA	2157395	Jonathan Vazquez	3404198	Dale Schipper
EPA 8260D	EPA 5035A	002-AA	2157395	Jonathan Vazquez	3404740	Dale Schipper
EPA 8260D	EPA 5035A	002-AA	2166541	Jonathan Vazquez	3411029	Dale Schipper
EPA 8270E		002-AD			3456160	Bill Carey
EPA 9056A	EPA 9056A	002-AC	2163170	Sage Hansen	3405747	Dale Schipper

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: 11118_Whithorn

Work Order: HN2511317

Sample Name: 11118 SB03 (5-6)
Laboratory Code: HN2511317-003
Sample Matrix: SOIL/SOLID

Date Collected: 08/12/25
Date Received: 08/13/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		003-AC	2162233		3403230	Everett Chudy
EPA 6020B	EPA 3050B	003-AC	2165859	Weston Kotecki	3410807	Dale Schipper
EPA 6020B	EPA 3050B	003-AC	2165859	Weston Kotecki	3413394	Dale Schipper
EPA 7471B	Method	003-AC	2162145	Maxx Richey	3405106	Dale Schipper
EPA 8081B		003-AD			3456160	Bill Carey
EPA 8082A		003-AD			3456160	Bill Carey
EPA 8151A		003-AD			3456160	Bill Carey
EPA 8260D	EPA 5035A	003-AA	2157395	Jonathan Vazquez	3404740	Dale Schipper
EPA 8260D	EPA 5035A	003-AA	2166541	Jonathan Vazquez	3425595	Dale Schipper
EPA 8260D	EPA 5035A	003-AA	2166541	Jonathan Vazquez	3431242	Dale Schipper
EPA 8270E		003-AD			3456160	Bill Carey
EPA 9056A	EPA 9056A	003-AC	2163170	Sage Hansen	3405747	Dale Schipper



ALS Environmental

Chain of Custody Form

Laboratory location:

Page 1 of 1

Customer Information		Project Information					Parameter/Method Request for Analysis							
Purchase Order		Project Name	11118_Whithorn				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	Billed 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	Chlorides (U.S. EPA Method 9056A)						
City/State/Zip	Canton, MI 48188	City/State/Zip	Canton, MI 48188				F	Pesticides (U.S. EPA Method 8081B (or Method 8081))						
Phone	734-397-3100	Phone	734-397-3100				G	Herbicides (U.S. EPA Method 8151A (or Method 8151))						
Fax		Fax					H							
e-Mail Address	RMontri@manniksmithgroup.com	e-Mail Address					I							
							J							
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	
1	11118 SB01 (1-2)	8/12/25	1405	Soil	7	3	X	X	X	X	X	X	X	
2	11118 SB02 (3-4)	↓	1412	Soil	7	3	↓	↓	↓	↓	↓	↓	↓	
3	11118 SB03 (5-6)	↓	1425	Soil	7	3	↓	↓	↓	↓	↓	↓	↓	
4														
5														
6														
7														
8														
9														
10														

Sampler(s): Please Print & Sign Shannon Kaczmarek Ryan Montri		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: 8/12/25	Time: 2:27pm	Received by: Colin		Notes: Quote# HN-061825-M&S-MA		
Relinquished by:	Date: 8/12/25	Time: 1700	Received by (Laboratory): QS		Cooler Temp. 5-6°C IR6		
Logged by (Laboratory): BC	Date: 8/13/25	Time: 04:10	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							

Environmental Division
Holland
Work Order Reference
HN2511317

Telephone : +1 616 399 6070

Page 30 of 31

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 Sample Receiving Checklist

Received by: BC

Date/Time: 8/13/25 0800

Carrier Name: QS

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

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

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

Chain of Custody present? Yes / No

COC signed when relinquished and received? Yes / No

COC agrees with sample labels? Yes / No

Samples in proper container/bottle? Yes / No

Sample containers intact? Yes / No

Sufficient sample volume for indicated test? Yes / No

All samples received within holding time? Yes / No

Container/Temp Blank temperature in compliance? Yes / No

Temperature(s) (°C): 5.6°C

Thermometer(s): IR6

Sample(s) received on ice? Yes / No

Matrix/Matrices: in ice soil

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 8/13/25 09:15

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:



November 20, 2025

Service Request No:R2510154

Bill Carey
ALS Environmental - Holland
3352 128th Avenue
Holland, MI 49424

Laboratory Results for: 11118_Whithorn

Dear Bill,

Enclosed are the results of the sample(s) submitted to our laboratory August 20, 2025
For your reference, these analyses have been assigned our service request number **R2510154**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7476. You may also contact me via email at Chris.Leavy@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Christopher Leavy
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE

+1 585 288 5380

FAX

+1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Received: 08/20/2025

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:

Three soil samples were received for analysis at ALS Environmental on 08/20/2025. 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.

Semivolatiles by GC/MS:

Method 8270E: The Method Reporting Limit (MRL) was elevated due to less than optimal sample mass (15g) used in the microwave preparation process. The nature of the sample necessitated using less mass of sample to avoid overheating. Overheating causes the extraction solvent to vent out of the vessel and may cause damage to the microwave vessels.

Semivolatile GC:

Method 8081B, 08/25/2025: The control limits were exceeded for analytes in the Continuing Calibration Verification (CCV). The QC failure was most likely due to the composition of the sample(s) immediately preceding the failing CCV. In order to protect the integrity of the instrument, no further corrective action was taken. Results should be considered estimated.

Method 8082A, 08/25/2025: The control limit was exceeded for one or more surrogates in the Continuing Calibration Verification (CCV). The surrogates were within acceptance limits for the associated field samples. The data quality was not significantly affected and no further corrective action was taken.

General Chemistry:

No significant anomalies were noted with this analysis.

Approved by 

Date 11/20/2025



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: 11118 SB01 (1-2)	Lab ID: R2510154-001
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
4,4'-DDE	16		1.4	2.8	ug/Kg	8081B
4,4'-DDT	4.2		1.4	2.8	ug/Kg	8081B
Anthracene	68	J	62	370	ug/Kg	8270E
Benz(a)anthracene	140	J	55	370	ug/Kg	8270E
Benzo(a)pyrene	130	J	99	370	ug/Kg	8270E
Benzo(b)fluoranthene	150	J	62	370	ug/Kg	8270E
Benzo(k)fluoranthene	61	J	60	370	ug/Kg	8270E
Chrysene	140	J	55	370	ug/Kg	8270E
Fluoranthene	320	J	93	370	ug/Kg	8270E
Phenanthrene	250	J	53	370	ug/Kg	8270E
Pyrene	250	J	62	370	ug/Kg	8270E
Total Solids	88.6				Percent	ALS SOP

CLIENT ID: 11118 SB02 (3-4)	Lab ID: R2510154-002
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	94.6				Percent	ALS SOP

CLIENT ID: 11118 SB03 (5-6)	Lab ID: R2510154-003
------------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	82.6				Percent	ALS SOP



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: ALS Environmental - US
Project: 11118_Whithorn

Service Request:R2510154

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R2510154-001	11118 SB01 (1-2)	8/12/2025	1405
R2510154-002	11118 SB02 (3-4)	8/12/2025	1412
R2510154-003	11118 SB03 (5-6)	8/12/2025	1425

ALS Group USA, Corp.

3352 128th Ave Holland Michigan 49424 United States
T+1 616 399 6070 | F



right solutions.
right partner.

Subcontract Chain of Custody

SAMPLING STATE:

COC ID: HN2511317

Subcontract To:

Rochester - Environmental TEL: +1 585 288 5380
1565 Jefferson Road, Building 300, Suite 360 FAX:
Rochester New York 14623

Due Date: 08/22/2025

Analysis Report Format: ALS Standard – Level II

Electronic Data Deliverable:

Customer Information		Project Information		Parameter/Method Request for Analysis					
Purchase Order		Project Name	11118_Whithorn	A	EPA 8081B-3546-S (INT SUB)				
Work Order	HN2511317			B	EPA 8082A-3546-S (INT SUB)				
Company Name	Holland - Environmental	Bill To Company	Holland - Environmental	C	EPA 8151A-S (INT SUB)				
Send Report To	Bill Carey	Inv Attn	Accounts Payable	D	EPA 8270E-TCL-3546-S (INT SUB)				
Address	3352 128th Ave	Address	3352 128th Ave	E					
				F					
City/State/Zip	Holland Michigan 49424	City/State/Zip	Holland Michigan 49424	G					
Phone	+1 616 399 6070	Phone	+1 616 399 6070	H					
Fax		Fax		I					
Email Address	bill.carey@alsglobal.com			J					

ALS Sample ID	Client Sample ID	Matrix	Collection Date	Bottle	A	B	C	D	E	F	G	H	I	J
HN2511317-001	11118 SB01 (1-2)	Soil/Solid	08/12/2025 14:05	001-AD	x	x	x	x						
HN2511317-002	11118 SB02 (3-4)	Soil/Solid	08/12/2025 14:12	002-AD	x	x	x	x						
HN2511317-003	11118 SB03 (5-6)	Soil/Solid	08/12/2025 14:25	003-AD	x	x	x	x						

Relinquished by	Date Time	Received by	Date Time	Cooler ID's
Relinquished by	Date Time	Received by	Date Time	
Sampled by				

R2510154 **5**

ALS Environmental - Holland
11118_Whithorn





Cooler Receipt and Preservation Check Form

R2510154

5

ALS Environmental - Holland
11118 Whithorn

Project/Client _____ Folder Number _____

Cooler received on 8/20/25 by: RMCOURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y <u>(N)</u>
2	Custody papers properly completed (ink, signed)?	<u>(Y)</u> N
3	Did all bottles arrive in good condition (unbroken)?	<u>(Y)</u> N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	<u>(Y)</u> N

5a	Did VOA vials have sig* bubbles?	Y N <u>(NA)</u>
5b	Sig* bubbles: Alk? Y N <u>(NA)</u> Sulfide? Y N <u>(NA)</u>	
6	Where did the bottles originate?	ALS/ROC <u>(CLIENT)</u>
7	Soil VOA received as: Bulk Encore 5035set	<u>(CNA)</u>

8. Temperature Readings Date: 8/20/25 Time: 10:01 ID: IR#12 (IR#11) From: Temp Blank (Sample Bottle)

Temp (°C)	<u>4.2</u>	<u>4.5</u>	<u>5.5</u>				
Within 0-6°C?	<u>(Y)</u> N	<u>(Y)</u> N	<u>(Y)</u> N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: SMO by RM on 8/20 at 12:16

5035 samples placed in storage location: _____ by _____ on _____ at _____ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check**: Date: 8/20/25 Time: 15:10 by: LM9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? (YES) NO10. Did all bottle labels and tags agree with custody papers? (YES) NO11. Were correct containers used for the tests indicated? (YES) NO12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO (N/A)13. Were dissolved metals filtered in the field? YES NO (N/A)14. Air Samples: Cassettes / Tubes Intact Y / N with MS Y / N Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2		HNO ₃								
≤2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**						

**VOAs and 1664 Not to be tested before analysis.
Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).Bottle lot numbers: 062325-15R

Explain all Discrepancies/ Other Comments: _____

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: LM

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Accreditations¹



NELAP States
Florida ID # E87674
New Hampshire ID # 2941
New York ID # 10145
Pennsylvania ID# 68-786
Texas ID#T104704581
Virginia #460167

Non-NELAP States
Connecticut ID #PH0556
Delaware Approved
Maine ID #NY01587
North Carolina #36701
North Carolina #676
Rhode Island LAO00333

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory. To verify NH accredited analytes, go to <https://www4.des.state.nh.us/CertifiedLabs/Certified-Method.aspx>.

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: ALS Environmental - US
Project: 11118_Whithorn

Service Request: R2510154

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
8270E	Soil	1-Methylnaphthalene
ALS SOP	Soil	Total Solids

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: ALS Environmental - US
Project: 11118_Whithorn/

Service Request: R2510154

Sample Name: 11118 SB01 (1-2)
Lab Code: R2510154-001
Sample Matrix: Soil

Date Collected: 08/12/25
Date Received: 08/20/25

Analysis Method	Extracted/Digested By	Analyzed By
8081B	JVANHEYNINGEN	AFELSER
8082A	JVANHEYNINGEN	AFELSER
8151A	JVANHEYNINGEN	AFELSER
8270E	JVANHEYNINGEN	AMOSSES
ALS SOP		CKUTZER

Sample Name: 11118 SB02 (3-4)
Lab Code: R2510154-002
Sample Matrix: Soil

Date Collected: 08/12/25
Date Received: 08/20/25

Analysis Method	Extracted/Digested By	Analyzed By
8081B	JVANHEYNINGEN	AFELSER
8082A	JVANHEYNINGEN	AFELSER
8151A	JVANHEYNINGEN	AFELSER
8270E	JVANHEYNINGEN	AMOSSES
ALS SOP		CKUTZER

Sample Name: 11118 SB03 (5-6)
Lab Code: R2510154-003
Sample Matrix: Soil

Date Collected: 08/12/25
Date Received: 08/20/25

Analysis Method	Extracted/Digested By	Analyzed By
8081B	JVANHEYNINGEN	AFELSER
8082A	JVANHEYNINGEN	AFELSER
8151A	JVANHEYNINGEN	AFELSER
8270E	JVANHEYNINGEN	AMOSSES
ALS SOP		CKUTZER



PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

INORGANIC

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7 / 200.8	200.2
6010D	3005A/3010A
6020B	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-N-2016 Amenable and Residual Cyanide	SM 4500-CN-G and SM 4500-CN-B,C-2016
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010D	3050B
6010D TCLP (1311) extract	3005A/3010A
6010D SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	

ORGANIC

Preparation Methods for Organic methods are listed in the header of the Results pages.

Regarding "Bulk/5035A":

For soil/solid samples submitted in soil jars for Volatiles analysis, the prep method is listed as "Bulk/5035A". The lab follows the closed-system EPA 5035A protocols once the sample is transferred to a sealed vial, but collection in bulk in soil jars does not follow the collection protocols listed in EPA 5035A. In accordance with the NYSDOH technical notice of October 2012, all results or reporting limits <200 ug/kg are to be considered estimated due to potential low bias.



Sample Results

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:05
Date Received: 08/20/25 09:30

Sample Name: 11118 SB01 (1-2)
Lab Code: R2510154-001

Units: ug/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Prep Method: EPA 3546

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4,5-Tetrachlorobenzene	83 U	370	83	1	08/21/25 17:23	8/21/25	
1-Methylnaphthalene	69 U	370	69	1	08/21/25 17:23	8/21/25	
2-Methylnaphthalene	140 U	370	140	1	08/21/25 17:23	8/21/25	
Acenaphthene	70 U	370	70	1	08/21/25 17:23	8/21/25	
Acenaphthylene	75 U	370	75	1	08/21/25 17:23	8/21/25	
Anthracene	68 J	370	62	1	08/21/25 17:23	8/21/25	
Benz(a)anthracene	140 J	370	55	1	08/21/25 17:23	8/21/25	
Benzo(a)pyrene	130 J	370	99	1	08/21/25 17:23	8/21/25	
Benzo(b)fluoranthene	150 J	370	62	1	08/21/25 17:23	8/21/25	
Benzo(g,h,i)perylene	86 U	370	86	1	08/21/25 17:23	8/21/25	
1,4-Dichlorobenzene	62 U	370	62	1	08/21/25 17:23	8/21/25	
Benzo(k)fluoranthene	61 J	370	60	1	08/21/25 17:23	8/21/25	
Biphenyl	110 U	370	110	1	08/21/25 17:23	8/21/25	
Chrysene	140 J	370	55	1	08/21/25 17:23	8/21/25	
1,4-Dioxane	37 U	75	37	1	08/21/25 17:23	8/21/25	
Dibenz(a,h)anthracene	81 U	370	81	1	08/21/25 17:23	8/21/25	
Dibenzofuran	68 U	370	68	1	08/21/25 17:23	8/21/25	
Fluoranthene	320 J	370	93	1	08/21/25 17:23	8/21/25	
Fluorene	70 U	370	70	1	08/21/25 17:23	8/21/25	
Indeno(1,2,3-cd)pyrene	120 U	370	120	1	08/21/25 17:23	8/21/25	
Naphthalene	70 U	370	70	1	08/21/25 17:23	8/21/25	
Phenanthrene	250 J	370	53	1	08/21/25 17:23	8/21/25	
Pyrene	250 J	370	62	1	08/21/25 17:23	8/21/25	
2,3,4,6-Tetrachlorophenol	130 U	370	130	1	08/21/25 17:23	8/21/25	
2,4,5-Trichlorophenol	92 U	370	92	1	08/21/25 17:23	8/21/25	
2,4,6-Trichlorophenol	83 U	370	83	1	08/21/25 17:23	8/21/25	
2,4-Dichlorophenol	72 U	370	72	1	08/21/25 17:23	8/21/25	
2,4-Dimethylphenol	67 U	370	67	1	08/21/25 17:23	8/21/25	
2,4-Dinitrophenol	630 U	1900	630	1	08/21/25 17:23	8/21/25	
2,4-Dinitrotoluene	150 U	370	150	1	08/21/25 17:23	8/21/25	
2,6-Dinitrotoluene	81 U	370	81	1	08/21/25 17:23	8/21/25	
2-Chloronaphthalene	75 U	370	75	1	08/21/25 17:23	8/21/25	
2-Chlorophenol	62 U	370	62	1	08/21/25 17:23	8/21/25	
2-Methylphenol	77 U	370	77	1	08/21/25 17:23	8/21/25	
2-Nitroaniline	88 U	1900	88	1	08/21/25 17:23	8/21/25	
2-Nitrophenol	86 U	370	86	1	08/21/25 17:23	8/21/25	
3,3'-Dichlorobenzidine	140 U	370	140	1	08/21/25 17:23	8/21/25	
3- and 4-Methylphenol Coelution	71 U	370	71	1	08/21/25 17:23	8/21/25	
3-Nitroaniline	75 U	1900	75	1	08/21/25 17:23	8/21/25	
4,6-Dinitro-2-methylphenol	210 U	1900	210	1	08/21/25 17:23	8/21/25	
4-Bromophenyl Phenyl Ether	98 U	370	98	1	08/21/25 17:23	8/21/25	
4-Chloro-3-methylphenol	75 U	370	75	1	08/21/25 17:23	8/21/25	
4-Chloroaniline	140 U	370	140	1	08/21/25 17:23	8/21/25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:05
Date Received: 08/20/25 09:30

Sample Name: 11118 SB01 (1-2)
Lab Code: R2510154-001

Units: ug/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Prep Method: EPA 3546

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4-Chlorophenyl Phenyl Ether	80 U	370	80	1	08/21/25 17:23	8/21/25	
4-Nitroaniline	80 U	1900	80	1	08/21/25 17:23	8/21/25	
4-Nitrophenol	200 U	1900	200	1	08/21/25 17:23	8/21/25	
Acetophenone	110 U	370	110	1	08/21/25 17:23	8/21/25	
Atrazine	120 U	370	120	1	08/21/25 17:23	8/21/25	
Benzaldehyde	90 U	1900	90	1	08/21/25 17:23	8/21/25	
Benzoic Acid	590 U	1900	590	1	08/21/25 17:23	8/21/25	
Bis(1-chloroisopropyl) Ether	76 U	370	76	1	08/21/25 17:23	8/21/25	
Bis(2-chloroethoxy)methane	91 U	370	91	1	08/21/25 17:23	8/21/25	
Bis(2-chloroethyl) Ether	73 U	370	73	1	08/21/25 17:23	8/21/25	
Bis(2-ethylhexyl) Phthalate	68 U	560	68	1	08/21/25 17:23	8/21/25	
Butyl Benzyl Phthalate	110 U	370	110	1	08/21/25 17:23	8/21/25	
Caprolactam	82 U	370	82	1	08/21/25 17:23	8/21/25	
Carbazole	60 U	370	60	1	08/21/25 17:23	8/21/25	
Di-n-butyl Phthalate	60 U	370	60	1	08/21/25 17:23	8/21/25	
Di-n-octyl Phthalate	130 U	370	130	1	08/21/25 17:23	8/21/25	
Diethyl Phthalate	66 U	370	66	1	08/21/25 17:23	8/21/25	
Dimethyl Phthalate	71 U	370	71	1	08/21/25 17:23	8/21/25	
Hexachlorobenzene	89 U	370	89	1	08/21/25 17:23	8/21/25	
Hexachlorobutadiene	140 U	370	140	1	08/21/25 17:23	8/21/25	
Hexachlorocyclopentadiene	120 U	370	120	1	08/21/25 17:23	8/21/25	
Hexachloroethane	70 U	370	70	1	08/21/25 17:23	8/21/25	
Isophorone	78 U	370	78	1	08/21/25 17:23	8/21/25	
N-Nitrosodi-n-propylamine	120 U	370	120	1	08/21/25 17:23	8/21/25	
N-Nitrosodiphenylamine	240 U	370	240	1	08/21/25 17:23	8/21/25	
Nitrobenzene	67 U	370	67	1	08/21/25 17:23	8/21/25	
Pentachlorophenol (PCP)	370 U	1900	370	1	08/21/25 17:23	8/21/25	
Phenol	75 U	370	75	1	08/21/25 17:23	8/21/25	
Pyridine	50 U	1900	50	1	08/21/25 17:23	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	65	18 - 104	08/21/25 17:23	
Nitrobenzene-d5	62	12 - 98	08/21/25 17:23	
p-Terphenyl-d14	79	26 - 134	08/21/25 17:23	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:12
Date Received: 08/20/25 09:30

Sample Name: 11118 SB02 (3-4)
Lab Code: R2510154-002

Units: ug/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Prep Method: EPA 3546

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	64 U	350	64	1	08/21/25 17:47	8/21/25	
1,2,4,5-Tetrachlorobenzene	77 U	350	77	1	08/21/25 17:47	8/21/25	
2-Methylnaphthalene	130 U	350	130	1	08/21/25 17:47	8/21/25	
Acenaphthene	66 U	350	66	1	08/21/25 17:47	8/21/25	
Acenaphthylene	70 U	350	70	1	08/21/25 17:47	8/21/25	
Anthracene	58 U	350	58	1	08/21/25 17:47	8/21/25	
Benz(a)anthracene	52 U	350	52	1	08/21/25 17:47	8/21/25	
Benzo(a)pyrene	92 U	350	92	1	08/21/25 17:47	8/21/25	
Benzo(b)fluoranthene	58 U	350	58	1	08/21/25 17:47	8/21/25	
Benzo(g,h,i)perylene	80 U	350	80	1	08/21/25 17:47	8/21/25	
Benzo(k)fluoranthene	56 U	350	56	1	08/21/25 17:47	8/21/25	
1,4-Dichlorobenzene	58 U	350	58	1	08/21/25 17:47	8/21/25	
Biphenyl	110 U	350	110	1	08/21/25 17:47	8/21/25	
Chrysene	51 U	350	51	1	08/21/25 17:47	8/21/25	
Dibenz(a,h)anthracene	75 U	350	75	1	08/21/25 17:47	8/21/25	
1,4-Dioxane	34 U	70	34	1	08/21/25 17:47	8/21/25	
Dibenzofuran	63 U	350	63	1	08/21/25 17:47	8/21/25	
Fluoranthene	87 U	350	87	1	08/21/25 17:47	8/21/25	
Fluorene	65 U	350	65	1	08/21/25 17:47	8/21/25	
Indeno(1,2,3-cd)pyrene	120 U	350	120	1	08/21/25 17:47	8/21/25	
Naphthalene	65 U	350	65	1	08/21/25 17:47	8/21/25	
Phenanthrene	49 U	350	49	1	08/21/25 17:47	8/21/25	
Pyrene	58 U	350	58	1	08/21/25 17:47	8/21/25	
2,3,4,6-Tetrachlorophenol	120 U	350	120	1	08/21/25 17:47	8/21/25	
2,4,5-Trichlorophenol	85 U	350	85	1	08/21/25 17:47	8/21/25	
2,4,6-Trichlorophenol	77 U	350	77	1	08/21/25 17:47	8/21/25	
2,4-Dichlorophenol	67 U	350	67	1	08/21/25 17:47	8/21/25	
2,4-Dimethylphenol	62 U	350	62	1	08/21/25 17:47	8/21/25	
2,4-Dinitrophenol	590 U	1800	590	1	08/21/25 17:47	8/21/25	
2,4-Dinitrotoluene	140 U	350	140	1	08/21/25 17:47	8/21/25	
2,6-Dinitrotoluene	76 U	350	76	1	08/21/25 17:47	8/21/25	
2-Chloronaphthalene	69 U	350	69	1	08/21/25 17:47	8/21/25	
2-Chlorophenol	58 U	350	58	1	08/21/25 17:47	8/21/25	
2-Methylphenol	72 U	350	72	1	08/21/25 17:47	8/21/25	
2-Nitroaniline	82 U	1800	82	1	08/21/25 17:47	8/21/25	
2-Nitrophenol	80 U	350	80	1	08/21/25 17:47	8/21/25	
3,3'-Dichlorobenzidine	130 U	350	130	1	08/21/25 17:47	8/21/25	
3- and 4-Methylphenol Coelution	66 U	350	66	1	08/21/25 17:47	8/21/25	
3-Nitroaniline	70 U	1800	70	1	08/21/25 17:47	8/21/25	
4,6-Dinitro-2-methylphenol	200 U	1800	200	1	08/21/25 17:47	8/21/25	
4-Bromophenyl Phenyl Ether	91 U	350	91	1	08/21/25 17:47	8/21/25	
4-Chloro-3-methylphenol	70 U	350	70	1	08/21/25 17:47	8/21/25	
4-Chloroaniline	130 U	350	130	1	08/21/25 17:47	8/21/25	

ALS Group USA, Corp.
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Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:12
Date Received: 08/20/25 09:30

Sample Name: 11118 SB02 (3-4)
Lab Code: R2510154-002

Units: ug/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Prep Method: EPA 3546

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4-Chlorophenyl Phenyl Ether	74 U	350	74	1	08/21/25 17:47	8/21/25	
4-Nitroaniline	75 U	1800	75	1	08/21/25 17:47	8/21/25	
4-Nitrophenol	180 U	1800	180	1	08/21/25 17:47	8/21/25	
Acetophenone	100 U	350	100	1	08/21/25 17:47	8/21/25	
Atrazine	110 U	350	110	1	08/21/25 17:47	8/21/25	
Benzaldehyde	84 U	1800	84	1	08/21/25 17:47	8/21/25	
Benzoic Acid	550 U	1800	550	1	08/21/25 17:47	8/21/25	
Bis(1-chloroisopropyl) Ether	71 U	350	71	1	08/21/25 17:47	8/21/25	
Bis(2-chloroethoxy)methane	85 U	350	85	1	08/21/25 17:47	8/21/25	
Bis(2-chloroethyl) Ether	68 U	350	68	1	08/21/25 17:47	8/21/25	
Bis(2-ethylhexyl) Phthalate	63 U	520	63	1	08/21/25 17:47	8/21/25	
Butyl Benzyl Phthalate	110 U	350	110	1	08/21/25 17:47	8/21/25	
Caprolactam	76 U	350	76	1	08/21/25 17:47	8/21/25	
Carbazole	56 U	350	56	1	08/21/25 17:47	8/21/25	
Di-n-butyl Phthalate	56 U	350	56	1	08/21/25 17:47	8/21/25	
Di-n-octyl Phthalate	130 U	350	130	1	08/21/25 17:47	8/21/25	
Diethyl Phthalate	62 U	350	62	1	08/21/25 17:47	8/21/25	
Dimethyl Phthalate	66 U	350	66	1	08/21/25 17:47	8/21/25	
Hexachlorobenzene	83 U	350	83	1	08/21/25 17:47	8/21/25	
Hexachlorobutadiene	130 U	350	130	1	08/21/25 17:47	8/21/25	
Hexachlorocyclopentadiene	110 U	350	110	1	08/21/25 17:47	8/21/25	
Hexachloroethane	65 U	350	65	1	08/21/25 17:47	8/21/25	
Isophorone	72 U	350	72	1	08/21/25 17:47	8/21/25	
N-Nitrosodi-n-propylamine	110 U	350	110	1	08/21/25 17:47	8/21/25	
N-Nitrosodiphenylamine	220 U	350	220	1	08/21/25 17:47	8/21/25	
Nitrobenzene	62 U	350	62	1	08/21/25 17:47	8/21/25	
Pentachlorophenol (PCP)	350 U	1800	350	1	08/21/25 17:47	8/21/25	
Phenol	70 U	350	70	1	08/21/25 17:47	8/21/25	
Pyridine	47 U	1800	47	1	08/21/25 17:47	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	58	18 - 104	08/21/25 17:47	
Nitrobenzene-d5	54	12 - 98	08/21/25 17:47	
p-Terphenyl-d14	77	26 - 134	08/21/25 17:47	

ALS Group USA, Corp.
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Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:25
Date Received: 08/20/25 09:30

Sample Name: 11118 SB03 (5-6)
Lab Code: R2510154-003

Units: ug/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Prep Method: EPA 3546

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	110 U	600	110	1	08/21/25 18:11	8/21/25	
1,2,4,5-Tetrachlorobenzene	140 U	600	140	1	08/21/25 18:11	8/21/25	
2-Methylnaphthalene	210 U	600	210	1	08/21/25 18:11	8/21/25	
Acenaphthene	120 U	600	120	1	08/21/25 18:11	8/21/25	
Acenaphthylene	130 U	600	130	1	08/21/25 18:11	8/21/25	
Anthracene	100 U	600	100	1	08/21/25 18:11	8/21/25	
Benz(a)anthracene	89 U	600	89	1	08/21/25 18:11	8/21/25	
Benzo(a)pyrene	160 U	600	160	1	08/21/25 18:11	8/21/25	
Benzo(b)fluoranthene	100 U	600	100	1	08/21/25 18:11	8/21/25	
Benzo(g,h,i)perylene	140 U	600	140	1	08/21/25 18:11	8/21/25	
1,4-Dichlorobenzene	100 U	600	100	1	08/21/25 18:11	8/21/25	
Benzo(k)fluoranthene	97 U	600	97	1	08/21/25 18:11	8/21/25	
Biphenyl	180 U	600	180	1	08/21/25 18:11	8/21/25	
Chrysene	88 U	600	88	1	08/21/25 18:11	8/21/25	
1,4-Dioxane	58 U	120	58	1	08/21/25 18:11	8/21/25	
Dibenz(a,h)anthracene	130 U	600	130	1	08/21/25 18:11	8/21/25	
Dibenzofuran	110 U	600	110	1	08/21/25 18:11	8/21/25	
Fluoranthene	150 U	600	150	1	08/21/25 18:11	8/21/25	
Fluorene	120 U	600	120	1	08/21/25 18:11	8/21/25	
Indeno(1,2,3-cd)pyrene	200 U	600	200	1	08/21/25 18:11	8/21/25	
Naphthalene	120 U	600	120	1	08/21/25 18:11	8/21/25	
Phenanthrene	85 U	600	85	1	08/21/25 18:11	8/21/25	
Pyrene	99 U	600	99	1	08/21/25 18:11	8/21/25	
2,3,4,6-Tetrachlorophenol	210 U	600	210	1	08/21/25 18:11	8/21/25	
2,4,5-Trichlorophenol	150 U	600	150	1	08/21/25 18:11	8/21/25	
2,4,6-Trichlorophenol	140 U	600	140	1	08/21/25 18:11	8/21/25	
2,4-Dichlorophenol	120 U	600	120	1	08/21/25 18:11	8/21/25	
2,4-Dimethylphenol	110 U	600	110	1	08/21/25 18:11	8/21/25	
2,4-Dinitrophenol	1100 U	3100	1100	1	08/21/25 18:11	8/21/25	
2,4-Dinitrotoluene	230 U	600	230	1	08/21/25 18:11	8/21/25	
2,6-Dinitrotoluene	130 U	600	130	1	08/21/25 18:11	8/21/25	
2-Chloronaphthalene	120 U	600	120	1	08/21/25 18:11	8/21/25	
2-Chlorophenol	100 U	600	100	1	08/21/25 18:11	8/21/25	
2-Methylphenol	130 U	600	130	1	08/21/25 18:11	8/21/25	
2-Nitroaniline	150 U	3100	150	1	08/21/25 18:11	8/21/25	
2-Nitrophenol	140 U	600	140	1	08/21/25 18:11	8/21/25	
3,3'-Dichlorobenzidine	220 U	600	220	1	08/21/25 18:11	8/21/25	
3- and 4-Methylphenol Coelution	120 U	600	120	1	08/21/25 18:11	8/21/25	
3-Nitroaniline	120 U	3100	120	1	08/21/25 18:11	8/21/25	
4,6-Dinitro-2-methylphenol	340 U	3100	340	1	08/21/25 18:11	8/21/25	
4-Bromophenyl Phenyl Ether	160 U	600	160	1	08/21/25 18:11	8/21/25	
4-Chloro-3-methylphenol	120 U	600	120	1	08/21/25 18:11	8/21/25	
4-Chloroaniline	220 U	600	220	1	08/21/25 18:11	8/21/25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:25
Date Received: 08/20/25 09:30

Sample Name: 11118 SB03 (5-6)
Lab Code: R2510154-003

Units: ug/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Prep Method: EPA 3546

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4-Chlorophenyl Phenyl Ether	130 U	600	130	1	08/21/25 18:11	8/21/25	
4-Nitroaniline	130 U	3100	130	1	08/21/25 18:11	8/21/25	
4-Nitrophenol	310 U	3100	310	1	08/21/25 18:11	8/21/25	
Acetophenone	180 U	600	180	1	08/21/25 18:11	8/21/25	
Atrazine	180 U	600	180	1	08/21/25 18:11	8/21/25	
Benzaldehyde	150 U	3100	150	1	08/21/25 18:11	8/21/25	
Benzoic Acid	940 U	3100	940	1	08/21/25 18:11	8/21/25	
Bis(1-chloroisopropyl) Ether	130 U	600	130	1	08/21/25 18:11	8/21/25	
Bis(2-chloroethoxy)methane	150 U	600	150	1	08/21/25 18:11	8/21/25	
Bis(2-chloroethyl) Ether	120 U	600	120	1	08/21/25 18:11	8/21/25	
Bis(2-ethylhexyl) Phthalate	110 U	900	110	1	08/21/25 18:11	8/21/25	
Butyl Benzyl Phthalate	180 U	600	180	1	08/21/25 18:11	8/21/25	
Caprolactam	140 U	600	140	1	08/21/25 18:11	8/21/25	
Carbazole	97 U	600	97	1	08/21/25 18:11	8/21/25	
Di-n-butyl Phthalate	97 U	600	97	1	08/21/25 18:11	8/21/25	
Di-n-octyl Phthalate	210 U	600	210	1	08/21/25 18:11	8/21/25	
Diethyl Phthalate	110 U	600	110	1	08/21/25 18:11	8/21/25	
Dimethyl Phthalate	120 U	600	120	1	08/21/25 18:11	8/21/25	
Hexachlorobenzene	150 U	600	150	1	08/21/25 18:11	8/21/25	
Hexachlorobutadiene	210 U	600	210	1	08/21/25 18:11	8/21/25	
Hexachlorocyclopentadiene	190 U	600	190	1	08/21/25 18:11	8/21/25	
Hexachloroethane	120 U	600	120	1	08/21/25 18:11	8/21/25	
Isophorone	130 U	600	130	1	08/21/25 18:11	8/21/25	
N-Nitrosodi-n-propylamine	190 U	600	190	1	08/21/25 18:11	8/21/25	
N-Nitrosodiphenylamine	380 U	600	380	1	08/21/25 18:11	8/21/25	
Nitrobenzene	110 U	600	110	1	08/21/25 18:11	8/21/25	
Pentachlorophenol (PCP)	600 U	3100	600	1	08/21/25 18:11	8/21/25	
Phenol	120 U	600	120	1	08/21/25 18:11	8/21/25	
Pyridine	80 U	3100	80	1	08/21/25 18:11	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	64	18 - 104	08/21/25 18:11	
Nitrobenzene-d5	60	12 - 98	08/21/25 18:11	
p-Terphenyl-d14	83	26 - 134	08/21/25 18:11	



Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:05
Date Received: 08/20/25 09:30

Sample Name: 11118 SB01 (1-2)
Lab Code: R2510154-001

Units: ug/Kg
Basis: Dry

Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

Analysis Method: 8081B
Prep Method: EPA 3546

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
4,4'-DDE	16	2.8	1.4	1	08/25/25 15:21	8/21/25	
4,4'-DDT	4.2	2.8	1.4	1	08/25/25 15:21	8/21/25	
Aldrin	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
Chlordane	7.0 U	14	7.0	1	08/25/25 15:21	8/21/25	
Dieldrin	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
Endosulfan I	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
Endosulfan II	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
Endosulfan Sulfate	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
Endrin	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
Endrin Aldehyde	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
Endrin Ketone	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
Heptachlor	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
Heptachlor Epoxide	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
Methoxychlor	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
Toxaphene	32 U	55	32	1	08/25/25 15:21	8/21/25	
alpha-BHC	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
alpha-Chlordane	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
beta-BHC	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
delta-BHC	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
gamma-BHC (Lindane)	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	
gamma-Chlordane	1.4 U	2.8	1.4	1	08/25/25 15:21	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	64	10 - 159	08/25/25 15:21	
Tetrachloro-m-xylene	55	10 - 132	08/25/25 15:21	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:12
Date Received: 08/20/25 09:30

Sample Name: 11118 SB02 (3-4)
Lab Code: R2510154-002

Units: ug/Kg
Basis: Dry

Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

Analysis Method: 8081B
Prep Method: EPA 3546

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
4,4'-DDE	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
4,4'-DDT	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
Aldrin	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
Chlordane	6.6 U	13	6.6	1	08/26/25 11:04	8/21/25	
Dieldrin	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
Endosulfan I	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
Endosulfan II	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
Endosulfan Sulfate	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
Endrin	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
Endrin Aldehyde	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
Endrin Ketone	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
Heptachlor	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
Heptachlor Epoxide	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
Methoxychlor	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
Toxaphene	30 U	51	30	1	08/26/25 11:04	8/21/25	
alpha-BHC	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
alpha-Chlordane	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
beta-BHC	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
delta-BHC	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
gamma-BHC (Lindane)	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	
gamma-Chlordane	1.4 U	2.6	1.4	1	08/26/25 11:04	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	79	10 - 159	08/26/25 11:04	
Tetrachloro-m-xylene	54	10 - 132	08/26/25 11:04	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:25
Date Received: 08/20/25 09:30

Sample Name: 11118 SB03 (5-6)
Lab Code: R2510154-003

Units: ug/Kg
Basis: Dry

Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

Analysis Method: 8081B
Prep Method: EPA 3546

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
4,4'-DDE	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
4,4'-DDT	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
Aldrin	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
Chlordane	15 U	29	15	1	08/26/25 11:21	8/21/25	
Dieldrin	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
Endosulfan I	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
Endosulfan II	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
Endosulfan Sulfate	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
Endrin	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
Endrin Aldehyde	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
Endrin Ketone	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
Heptachlor	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
Heptachlor Epoxide	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
Methoxychlor	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
Toxaphene	67 U	120	67	1	08/26/25 11:21	8/21/25	
alpha-BHC	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
alpha-Chlordane	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
beta-BHC	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
delta-BHC	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
gamma-BHC (Lindane)	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	
gamma-Chlordane	3.0 U	6.0	3.0	1	08/26/25 11:21	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	71	10 - 159	08/26/25 11:21	
Tetrachloro-m-xylene	52	10 - 132	08/26/25 11:21	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:05
Date Received: 08/20/25 09:30

Sample Name: 11118 SB01 (1-2)
Lab Code: R2510154-001

Units: ug/Kg
Basis: Dry

Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

Analysis Method: 8082A
Prep Method: EPA 3546

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	29 U	55	29	1	08/25/25 02:18	8/21/25	
Aroclor 1221	43 U	110	43	1	08/25/25 02:18	8/21/25	
Aroclor 1232	32 U	55	32	1	08/25/25 02:18	8/21/25	
Aroclor 1242	29 U	55	29	1	08/25/25 02:18	8/21/25	
Aroclor 1248	30 U	55	30	1	08/25/25 02:18	8/21/25	
Aroclor 1254	29 U	55	29	1	08/25/25 02:18	8/21/25	
Aroclor 1260	29 U	55	29	1	08/25/25 02:18	8/21/25	
Aroclor 1262	29 U	55	29	1	08/25/25 02:18	8/21/25	
Aroclor 1268	29 U	55	29	1	08/25/25 02:18	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	70	10 - 138	08/25/25 02:18	
Tetrachloro-m-xylene	53	11 - 122	08/25/25 02:18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:12
Date Received: 08/20/25 09:30

Sample Name: 11118 SB02 (3-4)
Lab Code: R2510154-002

Units: ug/Kg
Basis: Dry

Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

Analysis Method: 8082A
Prep Method: EPA 3546

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	27 U	51	27	1	08/25/25 02:32	8/21/25	
Aroclor 1221	41 U	100	41	1	08/25/25 02:32	8/21/25	
Aroclor 1232	30 U	51	30	1	08/25/25 02:32	8/21/25	
Aroclor 1242	27 U	51	27	1	08/25/25 02:32	8/21/25	
Aroclor 1248	28 U	51	28	1	08/25/25 02:32	8/21/25	
Aroclor 1254	27 U	51	27	1	08/25/25 02:32	8/21/25	
Aroclor 1260	27 U	51	27	1	08/25/25 02:32	8/21/25	
Aroclor 1262	27 U	51	27	1	08/25/25 02:32	8/21/25	
Aroclor 1268	27 U	51	27	1	08/25/25 02:32	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	82	10 - 138	08/25/25 02:32	
Tetrachloro-m-xylene	51	11 - 122	08/25/25 02:32	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:25
Date Received: 08/20/25 09:30

Sample Name: 11118 SB03 (5-6)
Lab Code: R2510154-003

Units: ug/Kg
Basis: Dry

Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

Analysis Method: 8082A
Prep Method: EPA 3546

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	60 U	120	60	1	08/25/25 02:45	8/21/25	
Aroclor 1221	92 U	230	92	1	08/25/25 02:45	8/21/25	
Aroclor 1232	67 U	120	67	1	08/25/25 02:45	8/21/25	
Aroclor 1242	60 U	120	60	1	08/25/25 02:45	8/21/25	
Aroclor 1248	64 U	120	64	1	08/25/25 02:45	8/21/25	
Aroclor 1254	60 U	120	60	1	08/25/25 02:45	8/21/25	
Aroclor 1260	60 U	120	60	1	08/25/25 02:45	8/21/25	
Aroclor 1262	60 U	120	60	1	08/25/25 02:45	8/21/25	
Aroclor 1268	60 U	120	60	1	08/25/25 02:45	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	70	10 - 138	08/25/25 02:45	
Tetrachloro-m-xylene	49	11 - 122	08/25/25 02:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:05
Date Received: 08/20/25 09:30

Sample Name: 11118 SB01 (1-2)
Lab Code: R2510154-001

Units: ug/Kg
Basis: Dry

Chlorinated Herbicides by GC

Analysis Method: 8151A
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4,5-T	6.7 U	13	6.7	1	08/26/25 22:19	8/22/25	
2,4,5-TP	6.0 U	13	6.0	1	08/26/25 22:19	8/22/25	
2,4-D	8.6 U	13	8.6	1	08/26/25 22:19	8/22/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
DCAA	57	10 - 151	08/26/25 22:19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:12
Date Received: 08/20/25 09:30

Sample Name: 11118 SB02 (3-4)
Lab Code: R2510154-002

Units: ug/Kg
Basis: Dry

Chlorinated Herbicides by GC

Analysis Method: 8151A
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4,5-T	5.3 U	11	5.3	1	08/26/25 22:37	8/22/25	
2,4,5-TP	4.8 U	11	4.8	1	08/26/25 22:37	8/22/25	
2,4-D	6.9 U	11	6.9	1	08/26/25 22:37	8/22/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
DCAA	54	10 - 151	08/26/25 22:37	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: 08/12/25 14:25
Date Received: 08/20/25 09:30

Sample Name: 11118 SB03 (5-6)
Lab Code: R2510154-003

Units: ug/Kg
Basis: Dry

Chlorinated Herbicides by GC

Analysis Method: 8151A
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4,5-T	6.1 U	12	6.1	1	08/26/25 22:56	8/22/25	
2,4,5-TP	5.5 U	12	5.5	1	08/26/25 22:56	8/22/25	
2,4-D	7.9 U	12	7.9	1	08/26/25 22:56	8/22/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
DCAA	59	10 - 151	08/26/25 22:56	



General Chemistry

ALS Environmental—Rochester Laboratory

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Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Sample Name: 11118 SB01 (1-2)
Lab Code: R2510154-001

Service Request: R2510154
Date Collected: 08/12/25 14:05
Date Received: 08/20/25 09:30

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	88.6	Percent	-	-	1	08/29/25 10:00	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Sample Name: 11118 SB02 (3-4)
Lab Code: R2510154-002

Service Request: R2510154
Date Collected: 08/12/25 14:12
Date Received: 08/20/25 09:30

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	94.6	Percent	-	-	1	08/29/25 10:00	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Sample Name: 11118 SB03 (5-6)
Lab Code: R2510154-003

Service Request: R2510154
Date Collected: 08/12/25 14:25
Date Received: 08/20/25 09:30

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	82.6	Percent	-	-	1	08/29/25 10:00	



QC Summary Forms

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Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154

SURROGATE RECOVERY SUMMARY

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Extraction Method: EPA 3546

Sample Name	Lab Code	2-Fluorobiphenyl	Nitrobenzene-d5	p-Terphenyl-d14
		18 - 104	12 - 98	26 - 134
11118 SB01 (1-2)	R2510154-001	65	62	79
11118 SB02 (3-4)	R2510154-002	58	54	77
11118 SB03 (5-6)	R2510154-003	64	60	83
Method Blank	RQ2511066-01	54	51	70
Lab Control Sample	RQ2511066-02	61	52	75
Duplicate Lab Control Sample	RQ2511066-03	58	50	74

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2511066-01

Units: ug/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Prep Method: EPA 3546

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4,5-Tetrachlorobenzene	74 U	330	74	1	08/21/25 13:25	8/21/25	
1-Methylnaphthalene	61 U	330	61	1	08/21/25 13:25	8/21/25	
2-Methylnaphthalene	120 U	330	120	1	08/21/25 13:25	8/21/25	
Acenaphthene	63 U	330	63	1	08/21/25 13:25	8/21/25	
Acenaphthylene	67 U	330	67	1	08/21/25 13:25	8/21/25	
Anthracene	55 U	330	55	1	08/21/25 13:25	8/21/25	
Benz(a)anthracene	49 U	330	49	1	08/21/25 13:25	8/21/25	
Benzo(a)pyrene	88 U	330	88	1	08/21/25 13:25	8/21/25	
Benzo(b)fluoranthene	55 U	330	55	1	08/21/25 13:25	8/21/25	
Benzo(g,h,i)perylene	76 U	330	76	1	08/21/25 13:25	8/21/25	
Benzo(k)fluoranthene	54 U	330	54	1	08/21/25 13:25	8/21/25	
1,4-Dichlorobenzene	55 U	330	55	1	08/21/25 13:25	8/21/25	
Biphenyl	98 U	330	98	1	08/21/25 13:25	8/21/25	
Chrysene	49 U	330	49	1	08/21/25 13:25	8/21/25	
1,4-Dioxane	32 U	67	32	1	08/21/25 13:25	8/21/25	
Dibenz(a,h)anthracene	72 U	330	72	1	08/21/25 13:25	8/21/25	
Dibenzofuran	60 U	330	60	1	08/21/25 13:25	8/21/25	
Fluoranthene	83 U	330	83	1	08/21/25 13:25	8/21/25	
Fluorene	62 U	330	62	1	08/21/25 13:25	8/21/25	
Indeno(1,2,3-cd)pyrene	110 U	330	110	1	08/21/25 13:25	8/21/25	
Naphthalene	62 U	330	62	1	08/21/25 13:25	8/21/25	
Phenanthrene	47 U	330	47	1	08/21/25 13:25	8/21/25	
Pyrene	55 U	330	55	1	08/21/25 13:25	8/21/25	
2,3,4,6-Tetrachlorophenol	120 U	330	120	1	08/21/25 13:25	8/21/25	
2,4,5-Trichlorophenol	82 U	330	82	1	08/21/25 13:25	8/21/25	
2,4,6-Trichlorophenol	74 U	330	74	1	08/21/25 13:25	8/21/25	
2,4-Dichlorophenol	64 U	330	64	1	08/21/25 13:25	8/21/25	
2,4-Dimethylphenol	59 U	330	59	1	08/21/25 13:25	8/21/25	
2,4-Dinitrophenol	560 U	1700	560	1	08/21/25 13:25	8/21/25	
2,4-Dinitrotoluene	130 U	330	130	1	08/21/25 13:25	8/21/25	
2,6-Dinitrotoluene	72 U	330	72	1	08/21/25 13:25	8/21/25	
2-Chloronaphthalene	66 U	330	66	1	08/21/25 13:25	8/21/25	
2-Chlorophenol	55 U	330	55	1	08/21/25 13:25	8/21/25	
2-Methylphenol	69 U	330	69	1	08/21/25 13:25	8/21/25	
2-Nitroaniline	78 U	1700	78	1	08/21/25 13:25	8/21/25	
2-Nitrophenol	77 U	330	77	1	08/21/25 13:25	8/21/25	
3,3'-Dichlorobenzidine	120 U	330	120	1	08/21/25 13:25	8/21/25	
3- and 4-Methylphenol Coelution	63 U	330	63	1	08/21/25 13:25	8/21/25	
3-Nitroaniline	67 U	1700	67	1	08/21/25 13:25	8/21/25	
4,6-Dinitro-2-methylphenol	190 U	1700	190	1	08/21/25 13:25	8/21/25	
4-Bromophenyl Phenyl Ether	87 U	330	87	1	08/21/25 13:25	8/21/25	
4-Chloro-3-methylphenol	67 U	330	67	1	08/21/25 13:25	8/21/25	
4-Chloroaniline	120 U	330	120	1	08/21/25 13:25	8/21/25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2511066-01

Units: ug/Kg
Basis: Dry

Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Analysis Method: 8270E
Prep Method: EPA 3546

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4-Chlorophenyl Phenyl Ether	71 U	330	71	1	08/21/25 13:25	8/21/25	
4-Nitroaniline	71 U	1700	71	1	08/21/25 13:25	8/21/25	
4-Nitrophenol	170 U	1700	170	1	08/21/25 13:25	8/21/25	
Acetophenone	95 U	330	95	1	08/21/25 13:25	8/21/25	
Atrazine	98 U	330	98	1	08/21/25 13:25	8/21/25	
Benzaldehyde	80 U	1700	80	1	08/21/25 13:25	8/21/25	
Benzoic Acid	520 U	1700	520	1	08/21/25 13:25	8/21/25	
Bis(1-chloroisopropyl) Ether	68 U	330	68	1	08/21/25 13:25	8/21/25	
Bis(2-chloroethoxy)methane	81 U	330	81	1	08/21/25 13:25	8/21/25	
Bis(2-chloroethyl) Ether	65 U	330	65	1	08/21/25 13:25	8/21/25	
Bis(2-ethylhexyl) Phthalate	61 U	500	61	1	08/21/25 13:25	8/21/25	
Butyl Benzyl Phthalate	96 U	330	96	1	08/21/25 13:25	8/21/25	
Caprolactam	73 U	330	73	1	08/21/25 13:25	8/21/25	
Carbazole	54 U	330	54	1	08/21/25 13:25	8/21/25	
Di-n-butyl Phthalate	54 U	330	54	1	08/21/25 13:25	8/21/25	
Di-n-octyl Phthalate	120 U	330	120	1	08/21/25 13:25	8/21/25	
Diethyl Phthalate	59 U	330	59	1	08/21/25 13:25	8/21/25	
Dimethyl Phthalate	63 U	330	63	1	08/21/25 13:25	8/21/25	
Hexachlorobenzene	79 U	330	79	1	08/21/25 13:25	8/21/25	
Hexachlorobutadiene	120 U	330	120	1	08/21/25 13:25	8/21/25	
Hexachlorocyclopentadiene	110 U	330	110	1	08/21/25 13:25	8/21/25	
Hexachloroethane	62 U	330	62	1	08/21/25 13:25	8/21/25	
Isophorone	69 U	330	69	1	08/21/25 13:25	8/21/25	
N-Nitrosodi-n-propylamine	110 U	330	110	1	08/21/25 13:25	8/21/25	
N-Nitrosodiphenylamine	210 U	330	210	1	08/21/25 13:25	8/21/25	
Nitrobenzene	59 U	330	59	1	08/21/25 13:25	8/21/25	
Pentachlorophenol (PCP)	330 U	1700	330	1	08/21/25 13:25	8/21/25	
Phenol	67 U	330	67	1	08/21/25 13:25	8/21/25	
Pyridine	45 U	1700	45	1	08/21/25 13:25	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	54	18 - 104	08/21/25 13:25	
Nitrobenzene-d5	51	12 - 98	08/21/25 13:25	
p-Terphenyl-d14	70	26 - 134	08/21/25 13:25	

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QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Analyzed: 08/21/25

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Units:ug/Kg
Basis:Dry

Analyte Name	Lab Control Sample RQ2511066-02				Duplicate Lab Control Sample RQ2511066-03				RPD	RPD Limit
	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits		
1-Methylnaphthalene	8270E	1630	3320	49	1740	3330	52	29-100	6	30
1,2,4,5-Tetrachlorobenzene	8270E	1830	3320	55	1650	3330	49	20-126	10	30
2-Methylnaphthalene	8270E	1540	3320	46	1660	3330	50	29-99	7	30
Acenaphthene	8270E	1850	3320	56	1990	3330	60	41-110	7	30
Acenaphthylene	8270E	2090	3320	63	2230	3330	67	44-122	6	30
Anthracene	8270E	1950	3320	59	2070	3330	62	41-123	6	30
Benz(a)anthracene	8270E	1990	3320	60	2140	3330	64	44-116	8	30
Benzo(a)pyrene	8270E	2270	3320	68	2420	3330	73	56-146	7	30
Benzo(b)fluoranthene	8270E	1860	3320	56	2000	3330	60	47-120	7	30
Benzo(g,h,i)perylene	8270E	1920	3320	58	2060	3330	62	41-129	7	30
Benzo(k)fluoranthene	8270E	2020	3320	61	2170	3330	65	49-124	7	30
1,4-Dichlorobenzene	8270E	1430	3320	43	1610	3330	48	16-83	12	30
Biphenyl	8270E	1920	3320	58	1720	3330	52	24-112	11	30
Chrysene	8270E	2030	3320	61	2180	3330	65	44-119	7	30
1,4-Dioxane	8270E	1070	3320	32	1050	3330	32	10-58	2	30
Dibenz(a,h)anthracene	8270E	2030	3320	61	2160	3330	65	18-146	6	30
Dibenzofuran	8270E	1940	3320	58	2070	3330	62	43-113	7	30
Fluoranthene	8270E	2000	3320	60	2140	3330	64	39-128	6	30
Fluorene	8270E	1960	3320	59	2070	3330	62	40-117	5	30
Indeno(1,2,3-cd)pyrene	8270E	2120	3320	64	2290	3330	69	43-129	8	30
Naphthalene	8270E	1550	3320	47	1660	3330	50	31-93	7	30
Phenanthrene	8270E	1810	3320	54	1920	3330	58	39-120	6	30
Pyrene	8270E	1960	3320	59	2130	3330	64	45-125	8	30
2,3,4,6-Tetrachlorophenol	8270E	2300	3320	69	2440	3330	73	42-117	6	30
2,4,5-Trichlorophenol	8270E	2080	3320	63	2180	3330	66	40-114	5	30
2,4,6-Trichlorophenol	8270E	1970	3320	59	2130	3330	64	33-108	8	30
2,4-Dichlorophenol	8270E	1820	3320	55	1930	3330	58	30-103	6	30
2,4-Dimethylphenol	8270E	1810	3320	54	1900	3330	57	32-100	5	30
2,4-Dinitrophenol	8270E	1540 J	3320	46	1700 J	3330	51	10-97	9	30
2,4-Dinitrotoluene	8270E	2060	3320	62	2210	3330	67	53-120	7	30
2,6-Dinitrotoluene	8270E	2060	3320	62	2220	3330	67	48-119	7	30
2-Chloronaphthalene	8270E	1850	3320	56	1980	3330	60	33-103	7	30
2-Chlorophenol	8270E	1780	3320	53	1910	3330	57	26-90	7	30

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QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Analyzed: 08/21/25

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Units:ug/Kg
Basis:Dry

Lab Control Sample RQ2511066-02					Duplicate Lab Control Sample RQ2511066-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
2-Methylphenol	8270E	1950	3320	59	2080	3330	63	33-99	7	30
2-Nitroaniline	8270E	1970	3320	59	2110	3330	63	41-119	7	30
2-Nitrophenol	8270E	1660	3320	50	1780	3330	53	24-98	7	30
3- and 4-Methylphenol Coelution	8270E	2030	3320	61	2210	3330	66	32-100	9	30
3-Nitroaniline	8270E	1700	3320	51	1750	3330	53	29-105	3	30
4,6-Dinitro-2-methylphenol	8270E	1960	3320	59	2110	3330	64	20-105	7	30
4-Bromophenyl Phenyl Ether	8270E	2000	3320	60	2130	3330	64	37-116	7	30
4-Chloro-3-methylphenol	8270E	1900	3320	57	2000	3330	60	40-116	5	30
4-Chloroaniline	8270E	1330	3320	40	1230	3330	37	10-87	8	30
4-Chlorophenyl Phenyl Ether	8270E	1920	3320	58	2050	3330	62	42-111	6	30
4-Nitroaniline	8270E	1600 J	3320	48	1880	3330	57	43-120	16	30
4-Nitrophenol	8270E	1760	3320	53	1810	3330	54	34-116	2	30
Acetophenone	8270E	1830	3320	55	1640	3330	49	23-87	11	30
Benzoic Acid	8270E	1960	3320	59	2120	3330	64	10-126	8	30
Bis(1-chloroisopropyl) Ether	8270E	1760	3320	53	1930	3330	58	22-99	9	30
Bis(2-chloroethoxy)methane	8270E	1820	3320	55	1930	3330	58	38-119	6	30
Bis(2-chloroethyl) Ether	8270E	1630	3320	49	1780	3330	53	23-94	9	30
Bis(2-ethylhexyl) Phthalate	8270E	2190	3320	66	2370	3330	71	38-139	8	30
Butyl Benzyl Phthalate	8270E	2080	3320	63	2240	3330	67	40-134	8	30
Caprolactam	8270E	1890	3320	57	1630	3330	49	21-128	15	30
Carbazole	8270E	1960	3320	59	2140	3330	64	42-131	9	30
Di-n-butyl Phthalate	8270E	2170	3320	65	2340	3330	70	42-141	8	30
Di-n-octyl Phthalate	8270E	2290	3320	69	2470	3330	74	38-143	8	30
Diethyl Phthalate	8270E	1980	3320	60	2100	3330	63	43-118	6	30
Dimethyl Phthalate	8270E	1990	3320	60	2140	3330	64	40-118	7	30
Hexachlorobenzene	8270E	1940	3320	59	2070	3330	62	35-122	6	30
Hexachlorobutadiene	8270E	1510	3320	45	1650	3330	49	28-96	9	30
Hexachlorocyclopentadiene	8270E	1670	3320	50	1850	3330	55	10-111	10	30
Hexachloroethane	8270E	1460	3320	44	1660	3330	50	18-85	13	30
Isophorone	8270E	1800	3320	54	1920	3330	58	39-104	6	30
N-Nitrosodi-n-propylamine	8270E	1790	3320	54	1910	3330	57	30-98	7	30
N-Nitrosodiphenylamine	8270E	2220	3320	67	2380	3330	72	43-130	7	30
Nitrobenzene	8270E	1640	3320	49	1760	3330	53	31-99	7	30

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Superset Reference:25-0000742749 rev 00

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QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Analyzed: 08/21/25

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS using Microwave Digestion

Units:ug/Kg
Basis:Dry

Analyte Name	Lab Control Sample				Duplicate Lab Control Sample					
	RQ2511066-02				RQ2511066-03					
	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Pentachlorophenol (PCP)	8270E	1680 J	3320	51	1770	3330	53	36-138	5	30
Phenol	8270E	1850	3320	56	1980	3330	60	31-100	7	30
Pyridine	8270E	2760	6640	42	2910	6660	44	12-80	5	30



Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154

SURROGATE RECOVERY SUMMARY
Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

Analysis Method: 8081B
Extraction Method: EPA 3546

Sample Name	Lab Code	Decachlorobiphenyl	Tetrachloro-m-xylene
		10 - 159	10 - 132
11118 SB01 (1-2)	R2510154-001	64	55
11118 SB02 (3-4)	R2510154-002	79	54
11118 SB03 (5-6)	R2510154-003	71	52
Method Blank	RQ2511079-01	64	54
Lab Control Sample	RQ2511079-02	68	61
Duplicate Lab Control Sample	RQ2511079-03	69	58

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2511079-01

Units: ug/Kg
Basis: Dry

Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

Analysis Method: 8081B
Prep Method: EPA 3546

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
4,4'-DDE	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
4,4'-DDT	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
Aldrin	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
Chlordane	4.2 U	8.3	4.2	1	08/25/25 12:41	8/21/25	
Dieldrin	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
Endosulfan I	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
Endosulfan II	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
Endosulfan Sulfate	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
Endrin	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
Endrin Aldehyde	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
Endrin Ketone	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
Heptachlor	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
Heptachlor Epoxide	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
Methoxychlor	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
Toxaphene	19 U	33	19	1	08/25/25 12:41	8/21/25	
alpha-BHC	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
alpha-Chlordane	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
beta-BHC	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
delta-BHC	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
gamma-BHC (Lindane)	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	
gamma-Chlordane	0.84 U	1.7	0.84	1	08/25/25 12:41	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	64	10 - 159	08/25/25 12:41	
Tetrachloro-m-xylene	54	10 - 132	08/25/25 12:41	

ALS Group USA, Corp.
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QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Analyzed: 08/25/25

Duplicate Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

Units:ug/Kg
Basis:Dry

Lab Control Sample RQ2511079-02					Duplicate Lab Control Sample RQ2511079-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4,4'-DDD	8081B	5.86	6.57	89	5.89	6.64	89	48-121	<1	30
4,4'-DDE	8081B	5.52	6.57	84	5.24	6.64	79	51-119	5	30
4,4'-DDT	8081B	6.01	6.57	92	6.09	6.64	92	51-126	1	30
Aldrin	8081B	4.95	6.57	75	4.64	6.64	70	45-109	6	30
Dieldrin	8081B	5.28	6.57	80	5.11	6.64	77	56-111	3	30
Endosulfan I	8081B	4.60	6.57	70	4.55	6.64	68	54-109	1	30
Endosulfan II	8081B	5.12	6.57	78	5.16	6.64	78	50-116	<1	30
Endosulfan Sulfate	8081B	5.30	6.57	81	5.31	6.64	80	55-115	<1	30
Endrin	8081B	5.41	6.57	82	5.24	6.64	79	49-124	3	30
Endrin Aldehyde	8081B	5.42	6.57	83	5.44	6.64	82	21-139	<1	30
Endrin Ketone	8081B	5.52	6.57	84	5.44	6.64	82	50-124	1	30
Heptachlor	8081B	5.17	6.57	79	4.88	6.64	73	43-115	6	30
Heptachlor Epoxide	8081B	5.38	6.57	82	5.07	6.64	76	53-113	6	30
Methoxychlor	8081B	6.41	6.57	98	6.17	6.64	93	47-141	4	30
alpha-BHC	8081B	5.00	6.57	76	4.55	6.64	68	44-109	10	30
alpha-Chlordane	8081B	5.23	6.57	80	5.09	6.64	77	52-114	3	30
beta-BHC	8081B	5.76	6.57	88	5.22	6.64	79	49-119	10	30
delta-BHC	8081B	5.50	6.57	84	5.32	6.64	80	49-113	3	30
gamma-BHC (Lindane)	8081B	4.88	6.57	74	4.55	6.64	69	43-112	7	30
gamma-Chlordane	8081B	5.37	6.57	82	5.12	6.64	77	51-117	5	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154

SURROGATE RECOVERY SUMMARY
Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

Analysis Method: 8082A
Extraction Method: EPA 3546

Sample Name	Lab Code	Decachlorobiphenyl	Tetrachloro-m-xylene
		10 - 138	11 - 122
11118 SB01 (1-2)	R2510154-001	70	53
11118 SB02 (3-4)	R2510154-002	82	51
11118 SB03 (5-6)	R2510154-003	70	49
Method Blank	RQ2511079-01	71	54
Lab Control Sample	RQ2511079-04	77	65
Duplicate Lab Control Sample	RQ2511079-05	84	62

ALS Group USA, Corp.
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Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2511079-01

Units: ug/Kg
Basis: Dry

Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

Analysis Method: 8082A
Prep Method: EPA 3546

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	17 U	32	17	1	08/24/25 23:50	8/21/25	
Aroclor 1221	26 U	66	26	1	08/24/25 23:50	8/21/25	
Aroclor 1232	19 U	32	19	1	08/24/25 23:50	8/21/25	
Aroclor 1242	17 U	32	17	1	08/24/25 23:50	8/21/25	
Aroclor 1248	18 U	32	18	1	08/24/25 23:50	8/21/25	
Aroclor 1254	17 U	32	17	1	08/24/25 23:50	8/21/25	
Aroclor 1260	17 U	32	17	1	08/24/25 23:50	8/21/25	
Aroclor 1262	17 U	32	17	1	08/24/25 23:50	8/21/25	
Aroclor 1268	17 U	32	17	1	08/24/25 23:50	8/21/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	71	10 - 138	08/24/25 23:50	
Tetrachloro-m-xylene	54	11 - 122	08/24/25 23:50	

ALS Group USA, Corp.
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QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Analyzed: 08/25/25

Duplicate Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

Units:ug/Kg
Basis:Dry

			Lab Control Sample			Duplicate Lab Control Sample				
			RQ2511079-04			RQ2511079-05				
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aroclor 1016	8082A	131	166	79	126	166	76	34-141	4	30
Aroclor 1260	8082A	140	166	85	144	166	87	30-158	3	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154

SURROGATE RECOVERY SUMMARY
Chlorinated Herbicides by GC

Analysis Method: 8151A
Extraction Method: Method

Sample Name	Lab Code	DCAA
		10 - 151
11118 SB01 (1-2)	R2510154-001	57
11118 SB02 (3-4)	R2510154-002	54
11118 SB03 (5-6)	R2510154-003	59
Method Blank	RQ2511152-01	63
Lab Control Sample	RQ2511152-02	59
Duplicate Lab Control Sample	RQ2511152-03	65

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2511152-01

Units: ug/Kg
Basis: Dry

Chlorinated Herbicides by GC

Analysis Method: 8151A
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4,5-T	5.0 U	9.9	5.0	1	08/26/25 19:16	8/22/25	
2,4,5-TP	4.5 U	9.9	4.5	1	08/26/25 19:16	8/22/25	
2,4-D	6.5 U	9.9	6.5	1	08/26/25 19:16	8/22/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
DCAA	63	10 - 151	08/26/25 19:16	

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dba ALS Environmental

QA/QC Report

Client: ALS Environmental - US
Project: 11118_Whithorn
Sample Matrix: Soil

Service Request: R2510154
Date Analyzed: 08/26/25

Duplicate Lab Control Sample Summary
Chlorinated Herbicides by GC

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ2511152-02

Duplicate Lab Control Sample
RQ2511152-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
2,4,5-T	8151A	16.3	25.0	65	19.0	25.2	75	19-127	15	30
2,4,5-TP	8151A	13.9	25.0	56	16.4	25.2	65	18-122	16	30
2,4-D	8151A	12.7	25.0	51	14.7	25.2	58	31-119	15	30

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dba ALS Environmental

Confirmation Results

Client: ALS Environmental - US
Project: 11118_Whithorn
Matrix: Soil

Service Request: R2510154
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: RQ2511152-02

Units: ug/Kg
Basis: Dry

Chlorinated Herbicides by GC

Analytical Method: 8151A
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
2,4,5-T	5.1	16.3	16.7	2		1	08/26/25 19:34
2,4,5-TP	4.6	13.9	14.4	4		1	08/26/25 19:34
2,4-D	6.6	12.7	15.2	18		1	08/26/25 19:34

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: ALS Environmental - US
Project: 11118_Whithorn
Matrix: Soil

Service Request: R2510154
Date Collected: NA
Date Received:

Sample Name: Duplicate Lab Control Sample
Lab Code: RQ2511152-03

Units: ug/Kg
Basis: Dry

Chlorinated Herbicides by GC

Analytical Method: 8151A
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
2,4,5-T	5.1	19.0	18.1	5		1	08/26/25 19:52
2,4,5-TP	4.6	16.4	16.5	<1		1	08/26/25 19:52
2,4-D	6.6	14.7	17.7	19		1	08/26/25 19:52