

PNG ENVIRONMENTAL, INC.

April 17, 2024

1176-01

Mr. Don Hanson
Oregon Department of Environmental Quality
Western Region Cleanup Program
165 E 7th Ave, Suite 100
Eugene, Oregon 97401

Subject: **Contained-In Waste Determination Request for Soil Drums**
Former Springvillla Dry Cleaner
1459 Mohawk Boulevard
Springfield, OR 97401
DEQ ECSI File Number 3222

Dear Mr. Hanson:

At the request of McKay Investment Company LLC, PNG Environmental, Inc. (PNG) is coordinating disposal of investigative-derived waste (IDW) soil media from the former Springvillla Dry Cleaner located at 1459 Mohawk Boulevard, Springfield, Oregon. The IDW soil media was generated during the February 2024 soil gas monitoring network expansion and March 2024 MW-49d monitoring well abandonment activities.

At the Oregon Department of Environmental Quality's (DEQ's) discretion, the agency can evaluate IDW soil media on a case-by-case basis for a no longer contained-in determination. The no longer contained-in determination may identify media that does not need to be managed as a Resource Conservation and Recovery Act (RCRA) hazardous waste and, subsequently, could be permitted for disposal to a RCRA Subtitle D landfill.

Three 55-gallon drums were used for containment of approximately 150 gallons of soil cuttings and grout from the February and March 2024 activities that are stored in the warehouse at the site. One 55-gallon drum of soil was generated during the February 2024 installation of soil gas monitoring points SG-14 through SG-25 including deep soil gas wells SG-1d, SG-2d, SG-4d, SG-6d, SG-12d, SG16d, and SG-19d, while two 55-gallon drums were generated during the March 2024 MW-49d abandonment. Both activities were completed per DEQ-approved work plans (PNG 2022, 2023, and 2024). This soil, as supported by subsequent laboratory data, is considered for possible Subtitle D disposal under a no longer contained-in determination, as outlined in this memorandum.

BACKGROUND

The Oregon DEQ Cleanup Program is overseeing the cleanup of the former Springvillla Dry Cleaner site. Along with knowledge of process for operations conducted at the former Springvillla Dry Cleaner, prior soil and groundwater sampling has confirmed that spills and/or releases of tetrachloroethene (PCE) have occurred at the site.

Approximately 150 gallons of IDW soil from the February and March 2024 activities are temporarily stored in three 55-gallon drums at the site. PNG collected a representative sample of soil from each drum following completion of the activities. These data were then used as the basis for screening soil against appropriate criteria in this contained-in evaluation.

REGULATORY WASTE MANAGEMENT FRAMEWORK

The basis for PNG's waste determination is detailed in the U.S. Environmental Protection Agency (EPA) memorandum titled "Management of Remediation Waste Under RCRA," (EPA530-F-98-026, October 1998). In particular, EPA's Contained-In Policy specifies that environmental media contaminated by hazardous waste are subject to regulation under RCRA if the media contains hazardous waste. If the environmental media are demonstrated not to contain regulated concentrations of hazardous wastes below certain criteria, then the media can be handled and disposed as non-hazardous waste.

The DEQ has adopted the U.S. EPA "contained-in" policy whereby soil (and other environmental media), although not wastes themselves, must be managed as if they were hazardous waste if they contain a listed hazardous waste or exhibit a characteristic of a hazardous waste. EPA considers contaminated media to no longer contain hazardous waste: (1) when they no longer exhibit a characteristic hazardous waste; and (2) when EPA or DEQ has determined that concentrations of hazardous constituents from listed hazardous wastes are below health-based levels. As an "EPA-authorized state," DEQ has on numerous occasions implemented the contained-in policy with regard to IDW generated at environmental investigation and cleanup sites.

The DEQ uses soil ingestion, dermal contact and inhalation occupational risk based concentrations (RBCs) from DEQ's Cleanup Program guidance (May 2018 updated June 2023) as health-based levels for comparison with the chemical concentrations in soil. Soil containing concentrations of contaminants less than the RBCs which also meet the Land Disposal Restriction standards (LDR) and the Universal Treatment Standards (UTS) will not be considered to contain hazardous waste and can be managed as non-hazardous, in accordance with EPA's contained-in policy. Table 1 summarizes applicable RBCs and LDR/UTS's for the contaminants of concern.

REFERENCE THRESHOLDS

Reference thresholds applicable to the contained-in determination are as follows and summarized in Table 1:

Hazardous Waste Characteristic:

Characteristics of hazardous waste must not be exceeded to qualify for a contained-in determination. At the former Springvilla Dry Cleaner site, based on knowledge of the waste soil, characteristics of ignitability, reactivity, and corrosivity can be excluded based on the nature of the environmental media; however, toxicity characteristic must be evaluated. Since testing for the toxicity leaching procedure (TCLP) was not conducted on the waste, each target compound's RCRA TCLP trigger was multiplied by 20 to obtain a comparative reference level on a total basis (milligrams per kilogram [mg/kg]). The 20 times factor is derived from the 20:1 liquid-to-solid ratio employed in the TCLP test analysis defined by U.S. EPA.

Human Health Based Levels:

DEQ uses soil ingestion, dermal contact and inhalation occupational RBCs from their Cleanup Program guidance as health-based levels for comparison with chemical concentrations in soil (DEQ 2023).

Land Disposal Restriction (LDR) Requirements:

U.S. EPA LDRs must be met (40 CFR Part 268.40). In addition, the UTS must be met (40 CFR Part 268.48). Alternatively, in lieu of the UTS, hazardous contaminated soils from remediation activities may utilize Alternative Treatment Standards (ATS) (40 CFR 268.49(c)(1)(C)). There are two approaches for applying the ATS alternative including: 1) reduction by at least 90 percent through treatment so that no more than 10 percent of the initial concentration remains, or 2) hazardous constituents for remediation waste that do not exceed ten times their Universal Treatment Standard (UTS). At the former Springvillla Dry Cleaner site, the ATS (UTS x 10 method) for evaluation of remediation soil waste is applied.

Screening Criteria

The screening criteria for Hazardous Waste Characteristic, Human Health, and LDR/UTS and associated values for the contaminants of concern detected in the waste under evaluation are summarized in Table 1.

IDW soil containing concentrations below occupational direct contact RBCs and characteristic hazardous waste criteria would be determined not to contain hazardous waste. If these criteria are achieved and they meet LDRs, the IDW could be profiled for disposal to a Subtitle D solid waste landfill. The lowest screening reference value is that of the LDR at 6 mg/kg.

SITE-SPECIFIC CONTAINED-IN WASTE DETERMINATION

One representative sample was collected from each of the three 55-gallon drums containing an estimated 50 gallons of soil cuttings and/or combination of soil with grout (total of approximately 150 gallons of solids). The samples were collected using EPA Method 5035 for field preservation and analyzed for volatile organic compounds (VOCs) by EPA Method 8260d (Attachment A). The Springvillla target solvent PCE was not detected above laboratory detection limits in soil from Drums No. 2 and No. 3, however was detected in Drum No. 1 at a low concentration of 0.021 milligrams per kilogram (mg/Kg) (Table 1).

The results of the PCE detection and not-detect laboratory reporting limits were compared to characteristic hazardous waste, human health risk-based levels, and LDR/UTS criteria described above and summarized on Table 1. The PCE detected at a concentration of 0.021 mg/Kg and the not-detect laboratory reporting limits are all well below screening criteria (Table 1). Based on the evaluation, soil in the drums is appropriate for disposal to a Subtitle D facility.

Based on the preceding, PNG is seeking approval from DEQ for delisting the three soil drums.

Mr. Don Hanson
April 17, 2024
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If you have any questions, please contact either of the undersigned at (503) 620-2387.

Sincerely,

PNG ENVIRONMENTAL, INC.

A handwritten signature in blue ink, appearing to read "Guy Tanz".

Guy Tanz, R.G.
Senior Geologist

A handwritten signature in blue ink, appearing to read "Paul McBeth".

Paul McBeth, R.G.
President

Attachments:

Table 1 – Soil Analytical Results – PCE
Attachment A – Laboratory Analytical Report

REFERENCES

- DEQ. 2023 (June). *Risk-Based Concentrations for Individual Chemicals Update*. Oregon Department of Environmental Quality.
- PNG. 2022 (November 22). *Work Plan for MW-49d Abandonment*. PNG Environmental, Inc.
- PNG. 2023 (November 1). *Electronic Mail Communication Mr. Guy Tanz to Mr. Don Hanson RE: 1176 Springvilla Requested Work Plans*. PNG Environmental, Inc.
- PNG. 2024 (January 17). *Revised Supplemental Soil Gas Sampling and Analysis Plan*. PNG Environmental, Inc.

Table 1
Soil Analytical Results - PCE (mg/Kg)
Former Springvillla Dry Cleaner
Springfield, Oregon

Sample ID	Date Sampled	Location	Tetrachloroethene (F001)
IDW-Soil 1	04/04/2024	Drum 1	0.021
IDW-Soil 2	04/04/2024	Drum 2	0.0083 U
IDW-Soil 3	04/04/2024	Drum 3	0.0050 U
DEQ Screening Level Criteria for Soil			
Direct Contact/Ingestion (Occupational) ^a			1,000
Land Disposal Screening Criteria			
LDR ^b			6.0
UTS or ATS (UTS x 10) ^c			60
Characteristic Waste Toxicity Screening^d			
(TCLP Trigger x20)			14

Notes:

^a Oregon Department of Environmental Quality (DEQ) risk-based concentration (RBC) for ingestion, direct contact, and inhalation in an occupational setting (revised August 2023)

^b Land Disposal Restriction standards (LDR) (40 CFR 268.40)

^c Universal Treatment Standard (UTS) (40 CFR 268.48) or Alternative Treatment Standard (ATS) for contaminated soil (40 CFR 268.49(c)(1)(c))

^d Toxicity Characteristic Leaching Procedure (TCLP) Characteristic Waste Concentration per 40 CFR 261.24 (x20)

Volatile organic compounds (VOCs) sampled using EPA Method 5035 and analyzed by EPA Method 8260D

mg/Kg = Milligrams per kilogram

U = Not detected above the reporting limit shown

ATTACHMENT A
LABORATORY ANALYTICAL REPORT

[illegible]

April 15, 2024

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

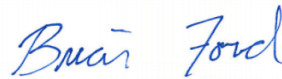
⁸ Al

⁹ Sc

PNG Environmental

Sample Delivery Group: L1723270
Samples Received: 04/06/2024
Project Number: 1176
Description:
Site: SPRINGFIELD, OR
Report To: Guy Tanz
6665 SW Hampton St., Suite 101
Tigard, OR 97223

Entire Report Reviewed By:



Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

IDW-SOIL 1 L1723270-01 Solid

Collected by
Jay Greifer

Collected date/time
04/04/24 11:58

Received date/time
04/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2262699	1	04/09/24 14:22	04/09/24 14:28	CMB	Mt. Juliet, TN
Mercury by Method 7471B	WG2262872	1	04/09/24 11:19	04/11/24 12:59	NDL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2263135	5	04/09/24 15:51	04/12/24 16:49	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2262636	1.44	04/04/24 11:58	04/08/24 19:33	JAH	Mt. Juliet, TN

IDW-SOIL 2 L1723270-02 Solid

Collected by
Jay Greifer

Collected date/time
04/04/24 12:06

Received date/time
04/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2262699	1	04/09/24 14:22	04/09/24 14:28	CMB	Mt. Juliet, TN
Mercury by Method 7471B	WG2262872	1	04/09/24 11:19	04/11/24 14:11	NDL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2263135	5	04/09/24 15:51	04/12/24 17:33	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2262636	1.82	04/04/24 12:06	04/08/24 19:52	JAH	Mt. Juliet, TN

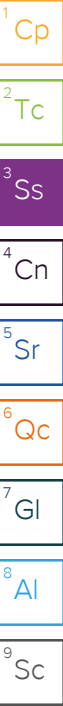
IDW-SOIL 3 L1723270-03 Solid

Collected by
Jay Greifer

Collected date/time
04/04/24 12:12

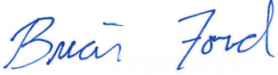
Received date/time
04/06/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2262699	1	04/09/24 14:22	04/09/24 14:28	CMB	Mt. Juliet, TN
Mercury by Method 7471B	WG2262872	1	04/09/24 11:19	04/11/24 14:14	NDL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2263135	5	04/09/24 15:51	04/12/24 17:36	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2262804	1.08	04/04/24 12:12	04/09/24 04:09	JAH	Mt. Juliet, TN

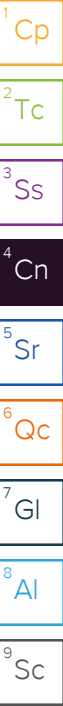


CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Brian Ford
Project Manager



Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch
Analyte	%			date / time	
Total Solids	77.9		1	04/09/2024 14:28	WG2262699

Mercury by Method 7471B

	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg		date / time	
Mercury	ND		0.0513	1	04/11/2024 12:59	WG2262872

Metals (ICPMS) by Method 6020B

	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg		date / time	
Arsenic	4.37		1.28	5	04/12/2024 16:49	WG2263135
Barium	110		3.21	5	04/12/2024 16:49	WG2263135
Cadmium	ND		1.28	5	04/12/2024 16:49	WG2263135
Chromium	17.8		6.42	5	04/12/2024 16:49	WG2263135
Lead	4.79		2.57	5	04/12/2024 16:49	WG2263135
Selenium	ND		3.21	5	04/12/2024 16:49	WG2263135
Silver	2.97		0.642	5	04/12/2024 16:49	WG2263135

Volatile Organic Compounds (GC/MS) by Method 8260D

	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg		date / time	
Acetone	ND		0.107	1.44	04/08/2024 19:33	WG2262636
Acrylonitrile	ND		0.0267	1.44	04/08/2024 19:33	WG2262636
Benzene	ND		0.00213	1.44	04/08/2024 19:33	WG2262636
Bromobenzene	ND		0.0267	1.44	04/08/2024 19:33	WG2262636
Bromodichloromethane	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
Bromoform	ND		0.0533	1.44	04/08/2024 19:33	WG2262636
Bromomethane	ND		0.0267	1.44	04/08/2024 19:33	WG2262636
n-Butylbenzene	ND		0.0267	1.44	04/08/2024 19:33	WG2262636
sec-Butylbenzene	ND		0.0267	1.44	04/08/2024 19:33	WG2262636
tert-Butylbenzene	ND		0.0107	1.44	04/08/2024 19:33	WG2262636
Carbon tetrachloride	ND		0.0107	1.44	04/08/2024 19:33	WG2262636
Chlorobenzene	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
Chlorodibromomethane	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
Chloroethane	ND	J4	0.0107	1.44	04/08/2024 19:33	WG2262636
Chloroform	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
Chloromethane	ND		0.0267	1.44	04/08/2024 19:33	WG2262636
2-Chlorotoluene	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
4-Chlorotoluene	ND		0.0107	1.44	04/08/2024 19:33	WG2262636
1,2-Dibromo-3-Chloropropane	ND		0.0533	1.44	04/08/2024 19:33	WG2262636
1,2-Dibromoethane	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
Dibromomethane	ND		0.0107	1.44	04/08/2024 19:33	WG2262636
1,2-Dichlorobenzene	ND		0.0107	1.44	04/08/2024 19:33	WG2262636
1,3-Dichlorobenzene	ND		0.0107	1.44	04/08/2024 19:33	WG2262636
1,4-Dichlorobenzene	ND		0.0107	1.44	04/08/2024 19:33	WG2262636
Dichlorodifluoromethane	ND		0.0107	1.44	04/08/2024 19:33	WG2262636
1,1-Dichloroethane	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
1,2-Dichloroethane	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
1,1-Dichloroethene	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
cis-1,2-Dichloroethene	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
trans-1,2-Dichloroethene	ND		0.0107	1.44	04/08/2024 19:33	WG2262636
1,2-Dichloropropane	ND		0.0107	1.44	04/08/2024 19:33	WG2262636
1,1-Dichloropropene	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
1,3-Dichloropropane	ND		0.0107	1.44	04/08/2024 19:33	WG2262636

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
trans-1,3-Dichloropropene	ND		0.0107	1.44	04/08/2024 19:33	WG2262636
2,2-Dichloropropane	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
Di-isopropyl ether	ND		0.00213	1.44	04/08/2024 19:33	WG2262636
Ethylbenzene	0.00623		0.00533	1.44	04/08/2024 19:33	WG2262636
Hexachloro-1,3-butadiene	ND		0.0533	1.44	04/08/2024 19:33	WG2262636
Isopropylbenzene	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
p-Isopropyltoluene	ND		0.0107	1.44	04/08/2024 19:33	WG2262636
2-Butanone (MEK)	ND		0.213	1.44	04/08/2024 19:33	WG2262636
Methylene Chloride	ND	C3	0.0533	1.44	04/08/2024 19:33	WG2262636
4-Methyl-2-pentanone (MIBK)	ND		0.0533	1.44	04/08/2024 19:33	WG2262636
Methyl tert-butyl ether	ND		0.00213	1.44	04/08/2024 19:33	WG2262636
Naphthalene	ND	C3	0.0267	1.44	04/08/2024 19:33	WG2262636
n-Propylbenzene	ND		0.0107	1.44	04/08/2024 19:33	WG2262636
Styrene	ND		0.0267	1.44	04/08/2024 19:33	WG2262636
1,1,1,2-Tetrachloroethane	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
1,1,2,2-Tetrachloroethane	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
1,1,2-Trichlorotrifluoroethane	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
Tetrachloroethene	0.0206		0.00533	1.44	04/08/2024 19:33	WG2262636
Toluene	0.0198		0.0107	1.44	04/08/2024 19:33	WG2262636
1,2,3-Trichlorobenzene	ND		0.0267	1.44	04/08/2024 19:33	WG2262636
1,2,4-Trichlorobenzene	ND	C3	0.0267	1.44	04/08/2024 19:33	WG2262636
1,1,1-Trichloroethane	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
1,1,2-Trichloroethane	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
Trichloroethene	ND		0.00213	1.44	04/08/2024 19:33	WG2262636
Trichlorofluoromethane	ND		0.00533	1.44	04/08/2024 19:33	WG2262636
1,2,3-Trichloropropane	ND		0.0267	1.44	04/08/2024 19:33	WG2262636
1,2,4-Trimethylbenzene	ND		0.0107	1.44	04/08/2024 19:33	WG2262636
1,2,3-Trimethylbenzene	ND		0.0107	1.44	04/08/2024 19:33	WG2262636
1,3,5-Trimethylbenzene	ND		0.0107	1.44	04/08/2024 19:33	WG2262636
Vinyl chloride	ND	J4	0.00533	1.44	04/08/2024 19:33	WG2262636
Xylenes, Total	0.0421		0.0139	1.44	04/08/2024 19:33	WG2262636
(S) Toluene-d8	101		75.0-131		04/08/2024 19:33	WG2262636
(S) 4-Bromofluorobenzene	84.4		67.0-138		04/08/2024 19:33	WG2262636
(S) 1,2-Dichloroethane-d4	99.3		70.0-130		04/08/2024 19:33	WG2262636

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Total Solids by Method 2540 G-2011

	Result	Qualifier	Dilution	Analysis	Batch
Analyte	%			date / time	
Total Solids	65.4		1	04/09/2024 14:28	WG2262699

Mercury by Method 7471B

	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg		date / time	
Mercury	ND		0.0612	1	04/11/2024 14:11	WG2262872

Metals (ICPMS) by Method 6020B

	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg		date / time	
Arsenic	3.52		1.53	5	04/12/2024 17:33	WG2263135
Barium	217		3.82	5	04/12/2024 17:33	WG2263135
Cadmium	ND		1.53	5	04/12/2024 17:33	WG2263135
Chromium	42.5		7.65	5	04/12/2024 17:33	WG2263135
Lead	5.78		3.06	5	04/12/2024 17:33	WG2263135
Selenium	ND		3.82	5	04/12/2024 17:33	WG2263135
Silver	0.815		0.765	5	04/12/2024 17:33	WG2263135

Volatile Organic Compounds (GC/MS) by Method 8260D

	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg		date / time	
Acetone	ND		0.166	1.82	04/08/2024 19:52	WG2262636
Acrylonitrile	ND		0.0415	1.82	04/08/2024 19:52	WG2262636
Benzene	ND		0.00331	1.82	04/08/2024 19:52	WG2262636
Bromobenzene	ND		0.0415	1.82	04/08/2024 19:52	WG2262636
Bromodichloromethane	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
Bromoform	ND		0.0828	1.82	04/08/2024 19:52	WG2262636
Bromomethane	ND		0.0415	1.82	04/08/2024 19:52	WG2262636
n-Butylbenzene	ND		0.0415	1.82	04/08/2024 19:52	WG2262636
sec-Butylbenzene	ND		0.0415	1.82	04/08/2024 19:52	WG2262636
tert-Butylbenzene	ND		0.0166	1.82	04/08/2024 19:52	WG2262636
Carbon tetrachloride	ND		0.0166	1.82	04/08/2024 19:52	WG2262636
Chlorobenzene	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
Chlorodibromomethane	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
Chloroethane	ND	J4	0.0166	1.82	04/08/2024 19:52	WG2262636
Chloroform	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
Chloromethane	ND		0.0415	1.82	04/08/2024 19:52	WG2262636
2-Chlorotoluene	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
4-Chlorotoluene	ND		0.0166	1.82	04/08/2024 19:52	WG2262636
1,2-Dibromo-3-Chloropropane	ND		0.0828	1.82	04/08/2024 19:52	WG2262636
1,2-Dibromoethane	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
Dibromomethane	ND		0.0166	1.82	04/08/2024 19:52	WG2262636
1,2-Dichlorobenzene	ND		0.0166	1.82	04/08/2024 19:52	WG2262636
1,3-Dichlorobenzene	ND		0.0166	1.82	04/08/2024 19:52	WG2262636
1,4-Dichlorobenzene	ND		0.0166	1.82	04/08/2024 19:52	WG2262636
Dichlorodifluoromethane	ND		0.0166	1.82	04/08/2024 19:52	WG2262636
1,1-Dichloroethane	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
1,2-Dichloroethane	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
1,1-Dichloroethene	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
cis-1,2-Dichloroethene	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
trans-1,2-Dichloroethene	ND		0.0166	1.82	04/08/2024 19:52	WG2262636
1,2-Dichloropropane	ND		0.0166	1.82	04/08/2024 19:52	WG2262636
1,1-Dichloropropene	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
1,3-Dichloropropane	ND		0.0166	1.82	04/08/2024 19:52	WG2262636

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
trans-1,3-Dichloropropene	ND		0.0166	1.82	04/08/2024 19:52	WG2262636
2,2-Dichloropropane	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
Di-isopropyl ether	ND		0.00331	1.82	04/08/2024 19:52	WG2262636
Ethylbenzene	0.0140		0.00828	1.82	04/08/2024 19:52	WG2262636
Hexachloro-1,3-butadiene	ND		0.0828	1.82	04/08/2024 19:52	WG2262636
Isopropylbenzene	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
p-Isopropyltoluene	ND		0.0166	1.82	04/08/2024 19:52	WG2262636
2-Butanone (MEK)	ND		0.331	1.82	04/08/2024 19:52	WG2262636
Methylene Chloride	ND	C3	0.0828	1.82	04/08/2024 19:52	WG2262636
4-Methyl-2-pentanone (MIBK)	ND		0.0828	1.82	04/08/2024 19:52	WG2262636
Methyl tert-butyl ether	ND		0.00331	1.82	04/08/2024 19:52	WG2262636
Naphthalene	ND	C3	0.0415	1.82	04/08/2024 19:52	WG2262636
n-Propylbenzene	ND		0.0166	1.82	04/08/2024 19:52	WG2262636
Styrene	ND		0.0415	1.82	04/08/2024 19:52	WG2262636
1,1,1,2-Tetrachloroethane	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
1,1,2,2-Tetrachloroethane	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
1,1,2-Trichlorotrifluoroethane	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
Tetrachloroethene	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
Toluene	0.0390		0.0166	1.82	04/08/2024 19:52	WG2262636
1,2,3-Trichlorobenzene	ND		0.0415	1.82	04/08/2024 19:52	WG2262636
1,2,4-Trichlorobenzene	ND	C3	0.0415	1.82	04/08/2024 19:52	WG2262636
1,1,1-Trichloroethane	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
1,1,2-Trichloroethane	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
Trichloroethene	ND		0.00331	1.82	04/08/2024 19:52	WG2262636
Trichlorofluoromethane	ND		0.00828	1.82	04/08/2024 19:52	WG2262636
1,2,3-Trichloropropane	ND		0.0415	1.82	04/08/2024 19:52	WG2262636
1,2,4-Trimethylbenzene	ND		0.0166	1.82	04/08/2024 19:52	WG2262636
1,2,3-Trimethylbenzene	ND		0.0166	1.82	04/08/2024 19:52	WG2262636
1,3,5-Trimethylbenzene	ND		0.0166	1.82	04/08/2024 19:52	WG2262636
Vinyl chloride	ND	J4	0.00828	1.82	04/08/2024 19:52	WG2262636
Xylenes, Total	0.0634		0.0215	1.82	04/08/2024 19:52	WG2262636
(S) Toluene-d8	106		75.0-131		04/08/2024 19:52	WG2262636
(S) 4-Bromofluorobenzene	90.1		67.0-138		04/08/2024 19:52	WG2262636
(S) 1,2-Dichloroethane-d4	96.8		70.0-130		04/08/2024 19:52	WG2262636

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	69.6		1	04/09/2024 14:28	WG2262699

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0574	1	04/11/2024 14:14	WG2262872

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	3.30		1.44	5	04/12/2024 17:36	WG2263135
Barium	163		3.59	5	04/12/2024 17:36	WG2263135
Cadmium	ND		1.44	5	04/12/2024 17:36	WG2263135
Chromium	31.6		7.18	5	04/12/2024 17:36	WG2263135
Lead	4.83		2.87	5	04/12/2024 17:36	WG2263135
Selenium	ND		3.59	5	04/12/2024 17:36	WG2263135
Silver	2.55		0.718	5	04/12/2024 17:36	WG2263135

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0993	1.08	04/09/2024 04:09	WG2262804
Acrylonitrile	ND		0.0248	1.08	04/09/2024 04:09	WG2262804
Benzene	ND		0.00199	1.08	04/09/2024 04:09	WG2262804
Bromobenzene	ND		0.0248	1.08	04/09/2024 04:09	WG2262804
Bromodichloromethane	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
Bromoform	ND		0.0496	1.08	04/09/2024 04:09	WG2262804
Bromomethane	ND		0.0248	1.08	04/09/2024 04:09	WG2262804
n-Butylbenzene	ND		0.0248	1.08	04/09/2024 04:09	WG2262804
sec-Butylbenzene	ND		0.0248	1.08	04/09/2024 04:09	WG2262804
tert-Butylbenzene	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
Carbon tetrachloride	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
Chlorobenzene	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
Chlorodibromomethane	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
Chloroethane	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
Chloroform	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
Chloromethane	ND		0.0248	1.08	04/09/2024 04:09	WG2262804
2-Chlorotoluene	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
4-Chlorotoluene	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
1,2-Dibromo-3-Chloropropane	ND		0.0496	1.08	04/09/2024 04:09	WG2262804
1,2-Dibromoethane	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
Dibromomethane	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
1,2-Dichlorobenzene	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
1,3-Dichlorobenzene	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
1,4-Dichlorobenzene	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
Dichlorodifluoromethane	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
1,1-Dichloroethane	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
1,2-Dichloroethane	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
1,1-Dichloroethene	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
cis-1,2-Dichloroethene	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
trans-1,2-Dichloroethene	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
1,2-Dichloropropane	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
1,1-Dichloropropene	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
1,3-Dichloropropane	ND		0.00993	1.08	04/09/2024 04:09	WG2262804

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
trans-1,3-Dichloropropene	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
2,2-Dichloropropane	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
Di-isopropyl ether	ND		0.00199	1.08	04/09/2024 04:09	WG2262804
Ethylbenzene	0.0101		0.00496	1.08	04/09/2024 04:09	WG2262804
Hexachloro-1,3-butadiene	ND		0.0496	1.08	04/09/2024 04:09	WG2262804
Isopropylbenzene	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
p-Isopropyltoluene	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
2-Butanone (MEK)	ND		0.199	1.08	04/09/2024 04:09	WG2262804
Methylene Chloride	ND		0.0496	1.08	04/09/2024 04:09	WG2262804
4-Methyl-2-pentanone (MIBK)	ND		0.0496	1.08	04/09/2024 04:09	WG2262804
Methyl tert-butyl ether	ND		0.00199	1.08	04/09/2024 04:09	WG2262804
Naphthalene	ND		0.0248	1.08	04/09/2024 04:09	WG2262804
n-Propylbenzene	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
Styrene	ND		0.0248	1.08	04/09/2024 04:09	WG2262804
1,1,1,2-Tetrachloroethane	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
1,1,2,2-Tetrachloroethane	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
1,1,2-Trichlorotrifluoroethane	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
Tetrachloroethene	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
Toluene	0.0215		0.00993	1.08	04/09/2024 04:09	WG2262804
1,2,3-Trichlorobenzene	ND		0.0248	1.08	04/09/2024 04:09	WG2262804
1,2,4-Trichlorobenzene	ND		0.0248	1.08	04/09/2024 04:09	WG2262804
1,1,1-Trichloroethane	ND	J4	0.00496	1.08	04/09/2024 04:09	WG2262804
1,1,2-Trichloroethane	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
Trichloroethene	ND		0.00199	1.08	04/09/2024 04:09	WG2262804
Trichlorofluoromethane	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
1,2,3-Trichloropropane	ND		0.0248	1.08	04/09/2024 04:09	WG2262804
1,2,4-Trimethylbenzene	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
1,2,3-Trimethylbenzene	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
1,3,5-Trimethylbenzene	ND		0.00993	1.08	04/09/2024 04:09	WG2262804
Vinyl chloride	ND		0.00496	1.08	04/09/2024 04:09	WG2262804
Xylenes, Total	0.0495		0.0129	1.08	04/09/2024 04:09	WG2262804
(S) Toluene-d8	99.2		75.0-131		04/09/2024 04:09	WG2262804
(S) 4-Bromofluorobenzene	101		67.0-138		04/09/2024 04:09	WG2262804
(S) 1,2-Dichloroethane-d4	97.1		70.0-130		04/09/2024 04:09	WG2262804

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4055867-1 04/09/24 14:28

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000			

1Cp

2Tc

3Ss

L1723270-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1723270-01 04/09/24 14:28 • (DUP) R4055867-3 04/09/24 14:28

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	77.9	82.4	1	5.65		10

4Cn

5Sr

6Qc

Laboratory Control Sample (LCS)

(LCS) R4055867-2 04/09/24 14:28

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	90.0-110	

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4056560-1 04/11/24 12:52

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Mercury	U		0.0180	0.0400

Laboratory Control Sample (LCS)

(LCS) R4056560-2 04/11/24 12:54

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Mercury	0.500	0.455	91.1	80.0-120	

L1723270-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1723270-01 04/11/24 12:59 • (MS) R4056560-4 04/11/24 13:02 • (MSD) R4056560-5 04/11/24 13:04

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Mercury	0.642	ND	0.665	0.613	104	95.5	1	75.0-125			8.13	20

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

Method Blank (MB)

(MB) R4057158-1 04/12/24 16:42

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00
Barium	U		0.152	2.50
Cadmium	U		0.0855	1.00
Chromium	U		0.297	5.00
Lead	U		0.0990	2.00
Selenium	U		0.180	2.50
Silver	U		0.0865	0.500

Laboratory Control Sample (LCS)

(LCS) R4057158-2 04/12/24 16:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	102	102	80.0-120	
Barium	100	104	104	80.0-120	
Cadmium	100	106	106	80.0-120	
Chromium	100	103	103	80.0-120	
Lead	100	102	102	80.0-120	
Selenium	100	106	106	80.0-120	
Silver	20.0	22.7	114	80.0-120	

L1723270-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1723270-01 04/12/24 16:49 • (MS) R4057158-5 04/12/24 16:59 • (MSD) R4057158-6 04/12/24 17:02

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	128	4.37	134	137	101	103	5	75.0-125			2.14	20
Barium	128	110	231	248	94.8	108	5	75.0-125			6.84	20
Cadmium	128	ND	143	143	111	112	5	75.0-125			0.151	20
Chromium	128	17.8	150	156	103	108	5	75.0-125			4.36	20
Lead	128	4.79	133	143	100	108	5	75.0-125			6.99	20
Selenium	128	ND	140	143	109	111	5	75.0-125	E	E	1.94	20
Silver	25.7	2.97	31.4	32.6	111	115	5	75.0-125			3.52	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4057482-3 04/08/24 11:30

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0365	0.0500
Acrylonitrile	U		0.00361	0.0125
Benzene	U		0.000467	0.00100
Bromobenzene	U		0.000900	0.0125
Bromodichloromethane	U		0.000725	0.00250
Bromoform	U		0.00117	0.0250
Bromomethane	U		0.00197	0.0125
n-Butylbenzene	U		0.00525	0.0125
sec-Butylbenzene	U		0.00288	0.0125
tert-Butylbenzene	U		0.00195	0.00500
Carbon tetrachloride	U		0.000898	0.00500
Chlorobenzene	U		0.000210	0.00250
Chlorodibromomethane	U		0.000612	0.00250
Chloroethane	U		0.00170	0.00500
Chloroform	U		0.00103	0.00250
Chloromethane	U		0.00435	0.0125
2-Chlorotoluene	U		0.000865	0.00250
4-Chlorotoluene	U		0.000450	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250
1,2-Dibromoethane	U		0.000648	0.00250
Dibromomethane	U		0.000750	0.00500
1,2-Dichlorobenzene	U		0.000425	0.00500
1,3-Dichlorobenzene	U		0.000600	0.00500
1,4-Dichlorobenzene	U		0.000700	0.00500
Dichlorodifluoromethane	U		0.00161	0.00500
1,1-Dichloroethane	U		0.000491	0.00250
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
1,2-Dichloropropane	U		0.00142	0.00500
1,1-Dichloropropene	U		0.000809	0.00250
1,3-Dichloropropane	U		0.000501	0.00500
cis-1,3-Dichloropropene	U		0.000757	0.00250
trans-1,3-Dichloropropene	U		0.00114	0.00500
2,2-Dichloropropane	U		0.00138	0.00250
Di-isopropyl ether	U		0.000410	0.00100
Ethylbenzene	U		0.000737	0.00250
Hexachloro-1,3-butadiene	U		0.00600	0.0250
Isopropylbenzene	U		0.000425	0.00250

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4057482-3 04/08/24 11:30

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00255	0.00500
2-Butanone (MEK)	U		0.0635	0.100
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250
Methyl tert-butyl ether	U		0.000350	0.00100
Naphthalene	U		0.00488	0.0125
n-Propylbenzene	U		0.000950	0.00500
Styrene	U		0.000229	0.0125
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
1,2,3-Trichlorobenzene	U		0.00733	0.0125
1,2,4-Trichlorobenzene	U		0.00440	0.0125
1,1,1-Trichloroethane	U		0.000923	0.00250
1,1,2-Trichloroethane	U		0.000597	0.00250
Trichloroethene	U		0.000584	0.00100
Trichlorofluoromethane	U		0.000827	0.00250
1,2,3-Trichloropropane	U		0.00162	0.0125
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,2,3-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	96.1			75.0-131
(S) 4-Bromofluorobenzene	86.6			67.0-138
(S) 1,2-Dichloroethane-d4	100			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4057482-1 04/08/24 09:52 • (LCSD) R4057482-2 04/08/24 10:12

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.511	0.480	81.8	76.8	10.0-160			6.26	31
Acrylonitrile	0.625	0.548	0.572	87.7	91.5	45.0-153			4.29	22
Benzene	0.125	0.117	0.123	93.6	98.4	70.0-123			5.00	20
Bromobenzene	0.125	0.140	0.140	112	112	73.0-121			0.000	20
Bromodichloromethane	0.125	0.141	0.147	113	118	73.0-121			4.17	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4057482-1 04/08/24 09:52 • (LCSD) R4057482-2 04/08/24 10:12

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromoform	0.125	0.114	0.127	91.2	102	64.0-132			10.8	20
Bromomethane	0.125	0.132	0.148	106	118	56.0-147			11.4	20
n-Butylbenzene	0.125	0.101	0.105	80.8	84.0	68.0-135			3.88	20
sec-Butylbenzene	0.125	0.119	0.125	95.2	100	74.0-130			4.92	20
tert-Butylbenzene	0.125	0.126	0.126	101	101	75.0-127			0.000	20
Carbon tetrachloride	0.125	0.123	0.135	98.4	108	66.0-128			9.30	20
Chlorobenzene	0.125	0.119	0.122	95.2	97.6	76.0-128			2.49	20
Chlorodibromomethane	0.125	0.123	0.125	98.4	100	74.0-127			1.61	20
Chloroethane	0.125	0.156	0.176	125	141	61.0-134		J4	12.0	20
Chloroform	0.125	0.116	0.123	92.8	98.4	72.0-123			5.86	20
Chloromethane	0.125	0.127	0.138	102	110	51.0-138			8.30	20
2-Chlorotoluene	0.125	0.131	0.135	105	108	75.0-124			3.01	20
4-Chlorotoluene	0.125	0.138	0.134	110	107	75.0-124			2.94	20
1,2-Dibromo-3-Chloropropane	0.125	0.119	0.112	95.2	89.6	59.0-130			6.06	20
1,2-Dibromoethane	0.125	0.122	0.126	97.6	101	74.0-128			3.23	20
Dibromomethane	0.125	0.135	0.136	108	109	75.0-122			0.738	20
1,2-Dichlorobenzene	0.125	0.117	0.113	93.6	90.4	76.0-124			3.48	20
1,3-Dichlorobenzene	0.125	0.121	0.125	96.8	100	76.0-125			3.25	20
1,4-Dichlorobenzene	0.125	0.113	0.116	90.4	92.8	77.0-121			2.62	20
Dichlorodifluoromethane	0.125	0.159	0.173	127	138	43.0-156			8.43	20
1,1-Dichloroethane	0.125	0.116	0.122	92.8	97.6	70.0-127			5.04	20
1,2-Dichloroethane	0.125	0.132	0.132	106	106	65.0-131			0.000	20
1,1-Dichloroethene	0.125	0.118	0.125	94.4	100	65.0-131			5.76	20
cis-1,2-Dichloroethene	0.125	0.102	0.110	81.6	88.0	73.0-125			7.55	20
trans-1,2-Dichloroethene	0.125	0.113	0.118	90.4	94.4	71.0-125			4.33	20
1,2-Dichloropropane	0.125	0.129	0.134	103	107	74.0-125			3.80	20
1,1-Dichloropropene	0.125	0.123	0.137	98.4	110	73.0-125			10.8	20
1,3-Dichloropropane	0.125	0.137	0.129	110	103	80.0-125			6.02	20
cis-1,3-Dichloropropene	0.125	0.142	0.140	114	112	76.0-127			1.42	20
trans-1,3-Dichloropropene	0.125	0.149	0.157	119	126	73.0-127			5.23	20
2,2-Dichloropropane	0.125	0.137	0.139	110	111	59.0-135			1.45	20
Di-isopropyl ether	0.125	0.115	0.118	92.0	94.4	60.0-136			2.58	20
Ethylbenzene	0.125	0.107	0.111	85.6	88.8	74.0-126			3.67	20
Hexachloro-1,3-butadiene	0.125	0.114	0.116	91.2	92.8	57.0-150			1.74	20
Isopropylbenzene	0.125	0.101	0.104	80.8	83.2	72.0-127			2.93	20
p-Isopropyltoluene	0.125	0.113	0.114	90.4	91.2	72.0-133			0.881	20
2-Butanone (MEK)	0.625	0.703	0.674	112	108	30.0-160			4.21	24
Methylene Chloride	0.125	0.0992	0.106	79.4	84.8	68.0-123			6.63	20
4-Methyl-2-pentanone (MIBK)	0.625	0.658	0.644	105	103	56.0-143			2.15	20
Methyl tert-butyl ether	0.125	0.110	0.117	88.0	93.6	66.0-132			6.17	20

1
Cp

2
Tc

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Ss

4
Cn

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Sr

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Qc

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Gl

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Al

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Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4057482-1 04/08/24 09:52 • (LCSD) R4057482-2 04/08/24 10:12

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Naphthalene	0.125	0.0870	0.0879	69.6	70.3	59.0-130			1.03	20
n-Propylbenzene	0.125	0.143	0.134	114	107	74.0-126			6.50	20
Styrene	0.125	0.110	0.115	88.0	92.0	72.0-127			4.44	20
1,1,1,2-Tetrachloroethane	0.125	0.112	0.110	89.6	88.0	74.0-129			1.80	20
1,1,2,2-Tetrachloroethane	0.125	0.136	0.131	109	105	68.0-128			3.75	20
1,1,2-Trichlorotrifluoroethane	0.125	0.120	0.125	96.0	100	61.0-139			4.08	20
Tetrachloroethene	0.125	0.143	0.143	114	114	70.0-136			0.000	20
Toluene	0.125	0.125	0.129	100	103	75.0-121			3.15	20
1,2,3-Trichlorobenzene	0.125	0.102	0.104	81.6	83.2	59.0-139			1.94	20
1,2,4-Trichlorobenzene	0.125	0.0964	0.103	77.1	82.4	62.0-137			6.62	20
1,1,1-Trichloroethane	0.125	0.125	0.142	100	114	69.0-126			12.7	20
1,1,2-Trichloroethane	0.125	0.138	0.137	110	110	78.0-123			0.727	20
Trichloroethene	0.125	0.118	0.131	94.4	105	76.0-126			10.4	20
Trichlorofluoromethane	0.125	0.150	0.162	120	130	61.0-142			7.69	20
1,2,3-Trichloropropane	0.125	0.140	0.141	112	113	67.0-129			0.712	20
1,2,4-Trimethylbenzene	0.125	0.112	0.113	89.6	90.4	70.0-126			0.889	20
1,2,3-Trimethylbenzene	0.125	0.119	0.120	95.2	96.0	74.0-124			0.837	20
1,3,5-Trimethylbenzene	0.125	0.130	0.128	104	102	73.0-127			1.55	20
Vinyl chloride	0.125	0.176	0.191	141	153	63.0-134	J4	J4	8.17	20
Xylenes, Total	0.375	0.325	0.340	86.7	90.7	72.0-127			4.51	20
(S) Toluene-d8				99.1	95.3	75.0-131				
(S) 4-Bromofluorobenzene				89.7	89.6	67.0-138				
(S) 1,2-Dichloroethane-d4				105	104	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4055465-3 04/08/24 23:32

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0365	0.0500
Acrylonitrile	U		0.00361	0.0125
Benzene	U		0.000467	0.00100
Bromobenzene	U		0.000900	0.0125
Bromodichloromethane	U		0.000725	0.00250
Bromoform	U		0.00117	0.0250
Bromomethane	U		0.00197	0.0125
n-Butylbenzene	U		0.00525	0.0125
sec-Butylbenzene	U		0.00288	0.0125
tert-Butylbenzene	U		0.00195	0.00500
Carbon tetrachloride	U		0.000898	0.00500
Chlorobenzene	U		0.000210	0.00250
Chlorodibromomethane	U		0.000612	0.00250
Chloroethane	U		0.00170	0.00500
Chloroform	U		0.00103	0.00250
Chloromethane	U		0.00435	0.0125
2-Chlorotoluene	U		0.000865	0.00250
4-Chlorotoluene	U		0.000450	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250
1,2-Dibromoethane	U		0.000648	0.00250
Dibromomethane	U		0.000750	0.00500
1,2-Dichlorobenzene	U		0.000425	0.00500
1,3-Dichlorobenzene	U		0.000600	0.00500
1,4-Dichlorobenzene	U		0.000700	0.00500
Dichlorodifluoromethane	U		0.00161	0.00500
1,1-Dichloroethane	U		0.000491	0.00250
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
1,2-Dichloropropane	U		0.00142	0.00500
1,1-Dichloropropene	U		0.000809	0.00250
1,3-Dichloropropane	U		0.000501	0.00500
cis-1,3-Dichloropropene	U		0.000757	0.00250
trans-1,3-Dichloropropene	U		0.00114	0.00500
2,2-Dichloropropane	U		0.00138	0.00250
Di-isopropyl ether	U		0.000410	0.00100
Ethylbenzene	U		0.000737	0.00250
Hexachloro-1,3-butadiene	U		0.00600	0.0250
Isopropylbenzene	U		0.000425	0.00250

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4055465-3 04/08/24 23:32

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00255	0.00500
2-Butanone (MEK)	U		0.0635	0.100
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250
Methyl tert-butyl ether	U		0.000350	0.00100
Naphthalene	U		0.00488	0.0125
n-Propylbenzene	U		0.000950	0.00500
Styrene	U		0.000229	0.0125
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
1,2,3-Trichlorobenzene	U		0.00733	0.0125
1,2,4-Trichlorobenzene	U		0.00440	0.0125
1,1,1-Trichloroethane	U		0.000923	0.00250
1,1,2-Trichloroethane	U		0.000597	0.00250
Trichloroethene	U		0.000584	0.00100
Trichlorofluoromethane	U		0.000827	0.00250
1,2,3-Trichloropropane	U		0.00162	0.0125
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,2,3-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	96.6			75.0-131
(S) 4-Bromofluorobenzene	98.2			67.0-138
(S) 1,2-Dichloroethane-d4	113			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4055465-1 04/08/24 21:38 • (LCSD) R4055465-2 04/08/24 23:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.596	0.651	95.4	104	10.0-160			8.82	31
Acrylonitrile	0.625	0.670	0.699	107	112	45.0-153			4.24	22
Benzene	0.125	0.123	0.131	98.4	105	70.0-123			6.30	20
Bromobenzene	0.125	0.110	0.117	88.0	93.6	73.0-121			6.17	20
Bromodichloromethane	0.125	0.141	0.150	113	120	73.0-121			6.19	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4055465-1 04/08/24 21:38 • (LCSD) R4055465-2 04/08/24 23:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromoform	0.125	0.116	0.123	92.8	98.4	64.0-132			5.86	20
Bromomethane	0.125	0.126	0.138	101	110	56.0-147			9.09	20
n-Butylbenzene	0.125	0.117	0.122	93.6	97.6	68.0-135			4.18	20
sec-Butylbenzene	0.125	0.114	0.121	91.2	96.8	74.0-130			5.96	20
tert-Butylbenzene	0.125	0.113	0.122	90.4	97.6	75.0-127			7.66	20
Carbon tetrachloride	0.125	0.143	0.157	114	126	66.0-128			9.33	20
Chlorobenzene	0.125	0.108	0.114	86.4	91.2	76.0-128			5.41	20
Chlorodibromomethane	0.125	0.118	0.133	94.4	106	74.0-127			12.0	20
Chloroethane	0.125	0.134	0.138	107	110	61.0-134			2.94	20
Chloroform	0.125	0.133	0.140	106	112	72.0-123			5.13	20
Chloromethane	0.125	0.119	0.133	95.2	106	51.0-138			11.1	20
2-Chlorotoluene	0.125	0.110	0.115	88.0	92.0	75.0-124			4.44	20
4-Chlorotoluene	0.125	0.113	0.123	90.4	98.4	75.0-124			8.47	20
1,2-Dibromo-3-Chloropropane	0.125	0.118	0.114	94.4	91.2	59.0-130			3.45	20
1,2-Dibromoethane	0.125	0.115	0.120	92.0	96.0	74.0-128			4.26	20
Dibromomethane	0.125	0.135	0.143	108	114	75.0-122			5.76	20
1,2-Dichlorobenzene	0.125	0.119	0.117	95.2	93.6	76.0-124			1.69	20
1,3-Dichlorobenzene	0.125	0.120	0.126	96.0	101	76.0-125			4.88	20
1,4-Dichlorobenzene	0.125	0.115	0.120	92.0	96.0	77.0-121			4.26	20
Dichlorodifluoromethane	0.125	0.142	0.161	114	129	43.0-156			12.5	20
1,1-Dichloroethane	0.125	0.129	0.140	103	112	70.0-127			8.18	20
1,2-Dichloroethane	0.125	0.144	0.154	115	123	65.0-131			6.71	20
1,1-Dichloroethene	0.125	0.133	0.151	106	121	65.0-131			12.7	20
cis-1,2-Dichloroethene	0.125	0.119	0.127	95.2	102	73.0-125			6.50	20
trans-1,2-Dichloroethene	0.125	0.119	0.135	95.2	108	71.0-125			12.6	20
1,2-Dichloropropane	0.125	0.126	0.133	101	106	74.0-125			5.41	20
1,1-Dichloropropene	0.125	0.128	0.137	102	110	73.0-125			6.79	20
1,3-Dichloropropane	0.125	0.111	0.115	88.8	92.0	80.0-125			3.54	20
cis-1,3-Dichloropropene	0.125	0.132	0.141	106	113	76.0-127			6.59	20
trans-1,3-Dichloropropene	0.125	0.120	0.127	96.0	102	73.0-127			5.67	20
2,2-Dichloropropane	0.125	0.146	0.164	117	131	59.0-135			11.6	20
Di-isopropyl ether	0.125	0.135	0.142	108	114	60.0-136			5.05	20
Ethylbenzene	0.125	0.111	0.120	88.8	96.0	74.0-126			7.79	20
Hexachloro-1,3-butadiene	0.125	0.133	0.137	106	110	57.0-150			2.96	20
Isopropylbenzene	0.125	0.121	0.124	96.8	99.2	72.0-127			2.45	20
p-Isopropyltoluene	0.125	0.121	0.128	96.8	102	72.0-133			5.62	20
2-Butanone (MEK)	0.625	0.731	0.737	117	118	30.0-160			0.817	24
Methylene Chloride	0.125	0.117	0.121	93.6	96.8	68.0-123			3.36	20
4-Methyl-2-pentanone (MIBK)	0.625	0.655	0.688	105	110	56.0-143			4.91	20
Methyl tert-butyl ether	0.125	0.141	0.147	113	118	66.0-132			4.17	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4055465-1 04/08/24 21:38 • (LCSD) R4055465-2 04/08/24 23:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Naphthalene	0.125	0.119	0.111	95.2	88.8	59.0-130			6.96	20
n-Propylbenzene	0.125	0.117	0.129	93.6	103	74.0-126			9.76	20
Styrene	0.125	0.112	0.116	89.6	92.8	72.0-127			3.51	20
1,1,1,2-Tetrachloroethane	0.125	0.119	0.132	95.2	106	74.0-129			10.4	20
1,1,2,2-Tetrachloroethane	0.125	0.105	0.108	84.0	86.4	68.0-128			2.82	20
1,1,2-Trichlorotrifluoroethane	0.125	0.118	0.123	94.4	98.4	61.0-139			4.15	20
Tetrachloroethene	0.125	0.111	0.122	88.8	97.6	70.0-136			9.44	20
Toluene	0.125	0.107	0.116	85.6	92.8	75.0-121			8.07	20
1,2,3-Trichlorobenzene	0.125	0.128	0.122	102	97.6	59.0-139			4.80	20
1,2,4-Trichlorobenzene	0.125	0.130	0.120	104	96.0	62.0-137			8.00	20
1,1,1-Trichloroethane	0.125	0.149	0.166	119	133	69.0-126		J4	10.8	20
1,1,2-Trichloroethane	0.125	0.107	0.112	85.6	89.6	78.0-123			4.57	20
Trichloroethene	0.125	0.128	0.138	102	110	76.0-126			7.52	20
Trichlorofluoromethane	0.125	0.145	0.159	116	127	61.0-142			9.21	20
1,2,3-Trichloropropane	0.125	0.123	0.135	98.4	108	67.0-129			9.30	20
1,2,4-Trimethylbenzene	0.125	0.115	0.123	92.0	98.4	70.0-126			6.72	20
1,2,3-Trimethylbenzene	0.125	0.117	0.126	93.6	101	74.0-124			7.41	20
1,3,5-Trimethylbenzene	0.125	0.114	0.126	91.2	101	73.0-127			10.0	20
Vinyl chloride	0.125	0.137	0.144	110	115	63.0-134			4.98	20
Xylenes, Total	0.375	0.340	0.360	90.7	96.0	72.0-127			5.71	20
(S) Toluene-d8				90.7	91.8	75.0-131				
(S) 4-Bromofluorobenzene				102	101	67.0-138				
(S) 1,2-Dichloroethane-d4				118	119	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

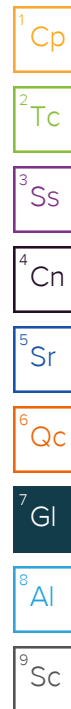
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J4	The associated batch QC was outside the established quality control range for accuracy.



ACCREDITATIONS & LOCATIONS

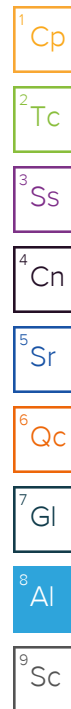
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



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