2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

| Date Prepared/Revised |
|---|
| 10/14/2025 |
| **DEP USE ONLY** |
| Date Received |

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103

## SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

## SECTION B. PRIVATE WATER SUPPLY INFORMATION

INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: LCSWMA

Address: 3044 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39 ° 57 ' 30.58 " Longitude: 76 ° 26 ' 11.25 "

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

Sample Field Filtered (must be 0.45 micron)?: [X] Yes [ ] No

Sample Date:(mm/dd/yy) 08/04/2025 Sample Collection Time: 11:10 AM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number) 301 Fulling Mill Road

Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s) 22-293

Lab Analysis Date 08/14/2025

Were any holding times exceeded?: Yes X No If yes, please explain in comments field.

Comments:

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 08/04/2025

1. Inorganics (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 16 | SM20-2321 |
| CALCIUM, TOTAL | 17.7 | EPA 200.7 |
| CALCIUM, DISSOLVED | 18.1 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 17 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 30 ND | EPA 200.7 |
| IRON, DISSOLVED (ug/l) | 60 ND | EPA 200.7 |
| MAGNESIUM, TOTAL | 10.3 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 10.7 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 5.5 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 6.9 | EPA 200.7 |
| NITRATE-NITROGEN | 17.3 | EPA 300 |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 08/04/2025

1. Inorganics, continued (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 5.79 | FIELD |
| pH-LAB (SU) | 7.46 | SM4500B |
| POTASSIUM, TOTAL | 2.5 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 2.6 | EPA 200.7 |
| SODIUM, TOTAL | 8.7 | EPA 200.7 |
| SODIUM, DISSOLVED | 8.6 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 257 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 230 | EPA 120.1 |
| SULFATE | 2 ND | EPA 300 |
| ALKALINITY | 13 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 200 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.59 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.6 | SM 2130B |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 08/04/2025

2. Organics (Enter all data in ug/l)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| BENZENE | 0.5 ND | EPA 524.2 |
| 1,2-DIBROMOETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| 1,2-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| CIS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRANS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| ETHYLBENZENE | 0.5 ND | EPA 524.2 |
| METHYLENE CHLORIDE | 0.5 ND | EPA 524.2 |
| TETRACHLOROETHENE | 0.5 ND | EPA 524.2 |
| TOLUENE | 0.5 ND | EPA 524.2 |
| 1,1,1-TRICHLOROETHANE | 0.5 ND | EPA 524.2 |
| TRICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRICHLOROFLUOROMETHANE | 0.5 ND | EPA 524.2 |
| VINYL CHLORIDE | 0.5 ND | EPA 524.2 |
| XYLENES (TOTAL) | 0.5 ND | EPA 524.2 |

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

| Date Prepared/Revised |
|---|
| 10/14/2025 |
| **DEP USE ONLY** |
| Date Received |

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103

## SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

## SECTION B. PRIVATE WATER SUPPLY INFORMATION

INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: MILLER

Address: 3052 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39 ° 57 ' 29.85 " Longitude: 76 ° 26 ' 11.45 "

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

Sample Field Filtered (must be 0.45 micron)?: [X] Yes [ ] No

Sample Date:(mm/dd/yy) 08/04/2025 Sample Collection Time: 12:20 PM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number) 301 Fulling Mill Road

Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s) 22-293

Lab Analysis Date 08/14/2025

Were any holding times exceeded?: ___ Yes X No If yes, please explain in comments field.

Comments:

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS MILLER

Sample Date: 08/04/2025

1. Inorganics (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 8 | SM20-2321 |
| CALCIUM, TOTAL | 18 | EPA 200.7 |
| CALCIUM, DISSOLVED | 19.4 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 18.6 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 30 ND | EPA 200.7 |
| IRON, DISSOLVED (ug/l) | 60 ND | EPA 200.7 |
| MAGNESIUM, TOTAL | 9 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 8.9 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 22 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 18 | EPA 200.7 |
| NITRATE-NITROGEN | 16.8 | EPA 300 |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS MILLER

Sample Date: 08/04/2025

1. Inorganics, continued (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 5.26 | FIELD |
| pH-LAB (SU) | 7.01 | SM4500B |
| POTASSIUM, TOTAL | 1.8 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 1.8 | EPA 200.7 |
| SODIUM, TOTAL | 8.3 | EPA 200.7 |
| SODIUM, DISSOLVED | 8.4 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 234 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 226 | EPA 120.1 |
| SULFATE | 2.3 | EPA 300 |
| ALKALINITY | 8 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 203 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.5 | SM 2130B |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS MILLER

Sample Date: 08/04/2025

2. Organics (Enter all data in ug/l)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| BENZENE | 0.5 ND | EPA 524.2 |
| 1,2-DIBROMOETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| 1,2-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| CIS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRANS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| ETHYLBENZENE | 0.5 ND | EPA 524.2 |
| METHYLENE CHLORIDE | 0.5 ND | EPA 524.2 |
| TETRACHLOROETHENE | 0.5 ND | EPA 524.2 |
| TOLUENE | 0.5 ND | EPA 524.2 |
| 1,1,1-TRICHLOROETHANE | 0.5 ND | EPA 524.2 |
| TRICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRICHLOROFLUOROMETHANE | 0.5 ND | EPA 524.2 |
| VINYL CHLORIDE | 0.5 ND | EPA 524.2 |
| XYLENES (TOTAL) | 0.5 ND | EPA 524.2 |

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

| Date Prepared/Revised |
|---|
| 10/14/2025 |
| **DEP USE ONLY** |
| Date Received |

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

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General Reference: Act 101 Section 1103

## SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

## SECTION B. PRIVATE WATER SUPPLY INFORMATION

INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: LCSWMA

Address: 3056 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39 ° 57 ' 28.44 " Longitude: 76 ° 26 ' 10.43 "

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

Sample Field Filtered (must be 0.45 micron)?: [X] Yes [ ] No

Sample Date:(mm/dd/yy) 08/04/2025 Sample Collection Time: 12:45 PM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number) 301 Fulling Mill Road

Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s) 22-293

Lab Analysis Date 08/14/2025

Were any holding times exceeded?: Yes X No If yes, please explain in comments field.

Comments:

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 08/04/2025

1. Inorganics (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 5 ND | SM20-2321 |
| CALCIUM, TOTAL | 11.9 | EPA 200.7 |
| CALCIUM, DISSOLVED | 12.4 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 22.4 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 30 ND | EPA 200.7 |
| IRON, DISSOLVED (ug/l) | 60 ND | EPA 200.7 |
| MAGNESIUM, TOTAL | 11.2 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 11.8 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 62 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 63 | EPA 200.7 |
| NITRATE-NITROGEN | 16.6 | EPA 300 |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 08/04/2025

1. Inorganics, continued (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 4.71 | FIELD |
| pH-LAB (SU) | 6.41 | SM4500B |
| POTASSIUM, TOTAL | 2 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 2 | EPA 200.7 |
| SODIUM, TOTAL | 8.7 | EPA 200.7 |
| SODIUM, DISSOLVED | 8.7 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 230 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 220 | EPA 120.1 |
| SULFATE | 2 ND | EPA 300 |
| ALKALINITY | 5 ND | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 177 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.45 | SM 2130B |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 08/04/2025

2. Organics (Enter all data in ug/l)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| BENZENE | 0.5 ND | EPA 524.2 |
| 1,2-DIBROMOETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| 1,2-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| CIS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRANS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| ETHYLBENZENE | 0.5 ND | EPA 524.2 |
| METHYLENE CHLORIDE | 0.5 ND | EPA 524.2 |
| TETRACHLOROETHENE | 0.5 ND | EPA 524.2 |
| TOLUENE | 0.5 ND | EPA 524.2 |
| 1,1,1-TRICHLOROETHANE | 0.5 ND | EPA 524.2 |
| TRICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRICHLOROFLUOROMETHANE | 0.5 ND | EPA 524.2 |
| VINYL CHLORIDE | 0.5 ND | EPA 524.2 |
| XYLENES (TOTAL) | 0.5 ND | EPA 524.2 |

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

| Date Prepared/Revised |
|---|
| 10/14/2025 |
| **DEP USE ONLY** |
| Date Received |

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

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General Reference: Act 101 Section 1103

## SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

## SECTION B. PRIVATE WATER SUPPLY INFORMATION

INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: LCSWMA

Address: 3060 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39 ° 57 ' 27.63 " Longitude: 76 ° 26 ' 10.01 "

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

Sample Field Filtered (must be 0.45 micron)?: [X] Yes [ ] No

Sample Date:(mm/dd/yy) 08/04/2025 Sample Collection Time: 3:20 PM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number) 301 Fulling Mill Road

Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s) 22-293

Lab Analysis Date 08/14/2025

Were any holding times exceeded?: Yes X No If yes, please explain in comments field.

Comments:

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 08/04/2025

1. Inorganics (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 5 ND | SM20-2321 |
| CALCIUM, TOTAL | 11.7 | EPA 200.7 |
| CALCIUM, DISSOLVED | 12.5 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 16.3 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 30 ND | EPA 200.7 |
| IRON, DISSOLVED (ug/l) | 60 ND | EPA 200.7 |
| MAGNESIUM, TOTAL | 12 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 12.7 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 100 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 110 | EPA 200.7 |
| NITRATE-NITROGEN | 15.6 | EPA 300 |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 08/04/2025

1. Inorganics, continued (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 5.12 | FIELD |
| pH-LAB (SU) | 6.69 | SM4500B |
| POTASSIUM, TOTAL | 3 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 2.8 | EPA 200.7 |
| SODIUM, TOTAL | 9.2 | EPA 200.7 |
| SODIUM, DISSOLVED | 9.2 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 245 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 223 | EPA 120.1 |
| SULFATE | 11.4 | EPA 300 |
| ALKALINITY | 5 ND | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 156 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.83 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.5 | SM 2130B |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 08/04/2025

2. Organics (Enter all data in ug/l)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| BENZENE | 0.5 ND | EPA 524.2 |
| 1,2-DIBROMOETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| 1,2-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| CIS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRANS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| ETHYLBENZENE | 0.5 ND | EPA 524.2 |
| METHYLENE CHLORIDE | 0.5 ND | EPA 524.2 |
| TETRACHLOROETHENE | 0.5 ND | EPA 524.2 |
| TOLUENE | 0.5 ND | EPA 524.2 |
| 1,1,1-TRICHLOROETHANE | 0.5 ND | EPA 524.2 |
| TRICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRICHLOROFLUOROMETHANE | 0.5 ND | EPA 524.2 |
| VINYL CHLORIDE | 0.5 ND | EPA 524.2 |
| XYLENES (TOTAL) | 0.5 ND | EPA 524.2 |

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

| Date Prepared/Revised |
|---|
| 10/14/2025 |
| **DEP USE ONLY** |
| Date Received |

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103

## SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

## SECTION B. PRIVATE WATER SUPPLY INFORMATION

INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: SENSENICH

Address: 3076 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39 ° 57 ' 28.2 " Longitude: 76 ° 26 ' 11.1 "

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

Sample Field Filtered (must be 0.45 micron)?: [X] Yes [ ] No

Sample Date:(mm/dd/yy) 08/06/2025 Sample Collection Time: 10:00 AM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number) 301 Fulling Mill Road

Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s) 22-293

Lab Analysis Date 08/19/2025

Were any holding times exceeded?: Yes X No If yes, please explain in comments field.

Comments:

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS SENSENICH

Sample Date: 08/06/2025

1. Inorganics (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 7 | SM20-2321 |
| CALCIUM, TOTAL | 13.7 | EPA 200.7 |
| CALCIUM, DISSOLVED | 14.3 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 46.3 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 30 ND | EPA 200.7 |
| IRON, DISSOLVED (ug/l) | 60 ND | EPA 200.7 |
| MAGNESIUM, TOTAL | 8 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 8.2 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 120 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 130 | EPA 200.7 |
| NITRATE-NITROGEN | 8.5 | EPA 300 |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS SENSENICH

Sample Date: 08/06/2025

1. Inorganics, continued (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 5.12 | FIELD |
| pH-LAB (SU) | 6.91 | SM4500B |
| POTASSIUM, TOTAL | 3 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 3.2 | EPA 200.7 |
| SODIUM, TOTAL | 22.8 | EPA 200.7 |
| SODIUM, DISSOLVED | 24.3 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 300 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 283 | EPA 120.1 |
| SULFATE | 10.5 | EPA 300 |
| ALKALINITY | 7 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 188 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.52 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.3 ND | SM 2130B |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS SENSENICH

Sample Date: 08/06/2025

2. Organics (Enter all data in ug/l)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| BENZENE | 0.5 ND | EPA 524.2 |
| 1,2-DIBROMOETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| 1,2-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| CIS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRANS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| ETHYLBENZENE | 0.5 ND | EPA 524.2 |
| METHYLENE CHLORIDE | 0.5 ND | EPA 524.2 |
| TETRACHLOROETHENE | 0.5 ND | EPA 524.2 |
| TOLUENE | 0.5 ND | EPA 524.2 |
| 1,1,1-TRICHLOROETHANE | 0.5 ND | EPA 524.2 |
| TRICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRICHLOROFLUOROMETHANE | 0.5 ND | EPA 524.2 |
| VINYL CHLORIDE | 0.5 ND | EPA 524.2 |
| XYLENES (TOTAL) | 0.5 ND | EPA 524.2 |

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

| Date Prepared/Revised |
|---|
| 10/14/2025 |
| **DEP USE ONLY** |
| Date Received |

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103

## SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

## SECTION B. PRIVATE WATER SUPPLY INFORMATION

INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: LCSWMA

Address: 3079 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39 ° 57 ' 21.99 " Longitude: 76 ° 26 ' 10.58 "

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

Sample Field Filtered (must be 0.45 micron)?: [X] Yes [ ] No

Sample Date:(mm/dd/yy) 08/06/2025 Sample Collection Time: 3:10 PM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number) 301 Fulling Mill Road

Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s) 22-293

Lab Analysis Date 08/19/2025

Were any holding times exceeded?: Yes X No If yes, please explain in comments field.

Comments:

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 08/06/2025

1. Inorganics (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 16 | SM20-2321 |
| CALCIUM, TOTAL | 10.7 | EPA 200.7 |
| CALCIUM, DISSOLVED | 11.1 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 28.2 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 30 ND | EPA 200.7 |
| IRON, DISSOLVED (ug/l) | 60 ND | EPA 200.7 |
| MAGNESIUM, TOTAL | 5.3 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 5.5 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 19 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 19 | EPA 200.7 |
| NITRATE-NITROGEN | 2.2 | EPA 300 |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 08/06/2025

1. Inorganics, continued (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 6.15 | FIELD |
| pH-LAB (SU) | 7.24 | SM4500B |
| POTASSIUM, TOTAL | 1.7 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 1.7 | EPA 200.7 |
| SODIUM, TOTAL | 12.2 | EPA 200.7 |
| SODIUM, DISSOLVED | 12.9 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 175 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 174 | EPA 120.1 |
| SULFATE | 7.4 | EPA 300 |
| ALKALINITY | 16 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 125 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.3 | SM 2130B |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 08/06/2025

2. Organics (Enter all data in ug/l)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| BENZENE | 0.5 ND | EPA 524.2 |
| 1,2-DIBROMOETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| 1,2-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| CIS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRANS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| ETHYLBENZENE | 0.5 ND | EPA 524.2 |
| METHYLENE CHLORIDE | 0.5 ND | EPA 524.2 |
| TETRACHLOROETHENE | 0.5 ND | EPA 524.2 |
| TOLUENE | 0.5 ND | EPA 524.2 |
| 1,1,1-TRICHLOROETHANE | 0.5 ND | EPA 524.2 |
| TRICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRICHLOROFLUOROMETHANE | 0.5 ND | EPA 524.2 |
| VINYL CHLORIDE | 0.5 ND | EPA 524.2 |
| XYLENES (TOTAL) | 0.5 ND | EPA 524.2 |

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

| Date Prepared/Revised |
|---|
| 10/14/2025 |
| **DEP USE ONLY** |
| Date Received |

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103

## SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

## SECTION B. PRIVATE WATER SUPPLY INFORMATION

INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: WEBER

Address: 3088 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39 ° 57 ' 21 " Longitude: 76 ° 26 ' 7.1 "

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

Sample Field Filtered (must be 0.45 micron)?: [X] Yes [ ] No

Sample Date:(mm/dd/yy) 08/05/2025 Sample Collection Time: 10:20 AM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number) 301 Fulling Mill Road

Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s) 22-293

Lab Analysis Date 08/18/2025

Were any holding times exceeded?: Yes X No If yes, please explain in comments field.

Comments:

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS WEBER

Sample Date: 08/05/2025

1. Inorganics (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 173 | SM20-2321 |
| CALCIUM, TOTAL | 0.22 | EPA 200.7 |
| CALCIUM, DISSOLVED | 0.23 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 68 | EPA 410.2 |
| CHLORIDE | 279 | EPA 300 |
| FLUORIDE | 0.5 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 30 ND | EPA 200.7 |
| IRON, DISSOLVED (ug/l) | 60 ND | EPA 200.7 |
| MAGNESIUM, TOTAL | 0.11 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 0.12 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 2.5 ND | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 5 ND | EPA 200.7 |
| NITRATE-NITROGEN | 8.1 | EPA 300 |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS WEBER

Sample Date: 08/05/2025

1. Inorganics, continued (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| NITRITE - NITROGEN | 2.5 ND | EPA 300 |
| pH-FIELD (SU) | 6.84 | FIELD |
| pH-LAB (SU) | 8.37 | SM4500B |
| POTASSIUM, TOTAL | 3.2 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 3.3 | EPA 200.7 |
| SODIUM, TOTAL | 242 | EPA 200.7 |
| SODIUM, DISSOLVED | 283 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 1350 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 1350 | EPA 120.1 |
| SULFATE | 5 ND | EPA 300 |
| ALKALINITY | 199 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 726 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.3 | SM 2130B |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS WEBER

Sample Date: 08/05/2025

2. Organics (Enter all data in ug/l)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| BENZENE | 0.5 ND | EPA 524.2 |
| 1,2-DIBROMOETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| 1,2-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| CIS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRANS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| ETHYLBENZENE | 0.5 ND | EPA 524.2 |
| METHYLENE CHLORIDE | 0.5 ND | EPA 524.2 |
| TETRACHLOROETHENE | 0.5 ND | EPA 524.2 |
| TOLUENE | 0.5 ND | EPA 524.2 |
| 1,1,1-TRICHLOROETHANE | 0.5 ND | EPA 524.2 |
| TRICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRICHLOROFLUOROMETHANE | 0.5 ND | EPA 524.2 |
| VINYL CHLORIDE | 0.5 ND | EPA 524.2 |
| XYLENES (TOTAL) | 0.5 ND | EPA 524.2 |

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

| Date Prepared/Revised |
|---|
| 10/14/2025 |
| **DEP USE ONLY** |
| Date Received |

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103

## SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

## SECTION B. PRIVATE WATER SUPPLY INFORMATION

INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: KIRCHNER

Address: 3100 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39 ° 57 ' 17.9 " Longitude: 76 ° 26 ' 6.28 "

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

Sample Field Filtered (must be 0.45 micron)?: [X] Yes [ ] No

Sample Date:(mm/dd/yy) 08/05/2025 Sample Collection Time: 9:45 AM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number) 301 Fulling Mill Road

Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s) 22-293

Lab Analysis Date 08/18/2025

Were any holding times exceeded?: Yes X No If yes, please explain in comments field.

Comments:

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS KIRCHNER

Sample Date: 08/05/2025

1. Inorganics (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 11 | SM20-2321 |
| CALCIUM, TOTAL | 13.1 | EPA 200.7 |
| CALCIUM, DISSOLVED | 13.8 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 46.1 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 30 ND | EPA 200.7 |
| IRON, DISSOLVED (ug/l) | 60 ND | EPA 200.7 |
| MAGNESIUM, TOTAL | 7.2 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 7.4 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 10 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 11 | EPA 200.7 |
| NITRATE-NITROGEN | 5.1 | EPA 300 |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS KIRCHNER

Sample Date: 08/05/2025

1. Inorganics, continued (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 5.23 | FIELD |
| pH-LAB (SU) | 7.25 | SM4500B |
| POTASSIUM, TOTAL | 1.5 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 1.6 | EPA 200.7 |
| SODIUM, TOTAL | 18.3 | EPA 200.7 |
| SODIUM, DISSOLVED | 19.4 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 275 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 265 | EPA 120.1 |
| SULFATE | 5.7 | EPA 300 |
| ALKALINITY | 11 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 162 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.4 | SM 2130B |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS KIRCHNER

Sample Date: 08/05/2025

2. Organics (Enter all data in ug/l)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| BENZENE | 0.5 ND | EPA 524.2 |
| 1,2-DIBROMOETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHANE | 0.82 | EPA 524.2 |
| 1,1-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| 1,2-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| CIS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRANS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| ETHYLBENZENE | 0.5 ND | EPA 524.2 |
| METHYLENE CHLORIDE | 0.5 ND | EPA 524.2 |
| TETRACHLOROETHENE | 0.5 ND | EPA 524.2 |
| TOLUENE | 0.5 ND | EPA 524.2 |
| 1,1,1-TRICHLOROETHANE | 0.5 ND | EPA 524.2 |
| TRICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRICHLOROFLUOROMETHANE | 0.5 ND | EPA 524.2 |
| VINYL CHLORIDE | 0.5 ND | EPA 524.2 |
| XYLENES (TOTAL) | 0.5 ND | EPA 524.2 |

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

| Date Prepared/Revised |
|---|
| 10/14/2025 |
| **DEP USE ONLY** |
| Date Received |

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103

## SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

## SECTION B. PRIVATE WATER SUPPLY INFORMATION

INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: FRY

Address: 3106 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39 ° 57 ' 17.27 " Longitude: 76 ° 26 ' 5.6 "

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

Sample Field Filtered (must be 0.45 micron)?: [X] Yes [ ] No

Sample Date:(mm/dd/yy) 08/06/2025 Sample Collection Time: 10:45 AM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number) 301 Fulling Mill Road

Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s) 22-293

Lab Analysis Date 08/19/2025

Were any holding times exceeded?: Yes X No If yes, please explain in comments field.

Comments:

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS FRY

Sample Date: 08/06/2025

1. Inorganics (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| AMMONIA-NITROGEN | 0.98 | SM4500D |
| BICARBONATE ALKALINITY | 16 | SM20-2321 |
| CALCIUM, TOTAL | 22.3 | EPA 200.7 |
| CALCIUM, DISSOLVED | 23.3 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 105 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 30 ND | EPA 200.7 |
| IRON, DISSOLVED (ug/l) | 60 ND | EPA 200.7 |
| MAGNESIUM, TOTAL | 14.2 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 14.7 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 35 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 37 | EPA 200.7 |
| NITRATE-NITROGEN | 7.2 | EPA 300 |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS FRY

Sample Date: 08/06/2025

1. Inorganics, continued (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 5.61 | FIELD |
| pH-LAB (SU) | 7.21 | SM4500B |
| POTASSIUM, TOTAL | 1.9 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 2 | EPA 200.7 |
| SODIUM, TOTAL | 41.4 | EPA 200.7 |
| SODIUM, DISSOLVED | 45.6 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 494 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 480 | EPA 120.1 |
| SULFATE | 5.1 | EPA 300 |
| ALKALINITY | 16 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 344 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.74 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.3 ND | SM 2130B |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS FRY

Sample Date: 08/06/2025

2. Organics (Enter all data in ug/l)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| BENZENE | 0.5 ND | EPA 524.2 |
| 1,2-DIBROMOETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| 1,2-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| CIS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRANS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| ETHYLBENZENE | 0.5 ND | EPA 524.2 |
| METHYLENE CHLORIDE | 0.5 ND | EPA 524.2 |
| TETRACHLOROETHENE | 0.5 ND | EPA 524.2 |
| TOLUENE | 0.5 ND | EPA 524.2 |
| 1,1,1-TRICHLOROETHANE | 0.5 ND | EPA 524.2 |
| TRICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRICHLOROFLUOROMETHANE | 0.5 ND | EPA 524.2 |
| VINYL CHLORIDE | 0.5 ND | EPA 524.2 |
| XYLENES (TOTAL) | 0.5 ND | EPA 524.2 |

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

| Date Prepared/Revised |
|---|
| 10/14/2025 |
| **DEP USE ONLY** |
| Date Received |

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

All information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 52, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General Reference: Act 101 Section 1103

## SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

## SECTION B. PRIVATE WATER SUPPLY INFORMATION

INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.S")

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: BECK

Address: 3125 RIVER ROAD

Phone No.:

Sampling Point: Latitude: 39 ° 57 ' 11.6 " Longitude: 76 ° 26 ' 5.4 "

Depth to Water Level: ft. Measured from: [X] Land Surface [ ] TOC

Casing Stick Up: ft. Elevation of Water Level: ft./MSL

Total Well Depth: ft.

Sampling Depth: ft. Sampling Method: [ ] Pumped [ ] Bailed

Well Purged: [ ] Yes [X] No Well Volumes Purged:

Sample Field Filtered (must be 0.45 micron)?: [X] Yes [ ] No

Sample Date:(mm/dd/yy) 08/06/2025 Sample Collection Time: 10:20 AM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number) 301 Fulling Mill Road

Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s) 22-293

Lab Analysis Date 08/19/2025

Were any holding times exceeded?: Yes X No If yes, please explain in comments field.

Comments:

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS BECK

Sample Date: 08/06/2025

1. Inorganics (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 142 | SM20-2321 |
| CALCIUM, TOTAL | 0.19 | EPA 200.7 |
| CALCIUM, DISSOLVED | 0.16 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 133 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 30 ND | EPA 200.7 |
| IRON, DISSOLVED (ug/l) | 60 ND | EPA 200.7 |
| MAGNESIUM, TOTAL | 0.05 ND | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 0.1 ND | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 2.5 ND | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 5 ND | EPA 200.7 |
| NITRATE-NITROGEN | 5 | EPA 300 |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS BECK

Sample Date: 08/06/2025

1. Inorganics, continued (Enter all data in mg/l except as noted)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| NITRITE - NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 6.91 | FIELD |
| pH-LAB (SU) | 8.38 | SM4500B |
| POTASSIUM, TOTAL | 0.55 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 0.5 | EPA 200.7 |
| SODIUM, TOTAL | 164 | EPA 200.7 |
| SODIUM, DISSOLVED | 183 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 841 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 812 | EPA 120.1 |
| SULFATE | 19.4 | EPA 300 |
| ALKALINITY | 150 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 462 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.8 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 5 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.3 ND | SM 2130B |

T Please indicate detection limit if analyte is not detected.

# FORM 52
# MUNICIPAL WASTE LANDFILL
# PRIVATE WATER SUPPLY
# QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS BECK

Sample Date: 08/06/2025

2. Organics (Enter all data in ug/l)

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|---|---|---|
| BENZENE | 0.5 ND | EPA 524.2 |
| 1,2-DIBROMOETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| 1,1-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| 1,2-DICHLOROETHANE | 0.5 ND | EPA 524.2 |
| CIS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRANS 1,2-DICHLOROETHENE | 0.5 ND | EPA 524.2 |
| ETHYLBENZENE | 0.5 ND | EPA 524.2 |
| METHYLENE CHLORIDE | 0.5 ND | EPA 524.2 |
| TETRACHLOROETHENE | 0.5 ND | EPA 524.2 |
| TOLUENE | 0.5 ND | EPA 524.2 |
| 1,1,1-TRICHLOROETHANE | 0.5 ND | EPA 524.2 |
| TRICHLOROETHENE | 0.5 ND | EPA 524.2 |
| TRICHLOROFLUOROMETHANE | 0.5 ND | EPA 524.2 |
| VINYL CHLORIDE | 0.5 ND | EPA 524.2 |
| XYLENES (TOTAL) | 0.5 ND | EPA 524.2 |

T Please indicate detection limit if analyte is not detected.

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 |

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**

Project 3RD QTR 2025 3044 RIVER RD
Workorder 3428698
Report ID 452102 on 8/23/2025

## Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 04, 2025.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

Susan Scherer

**Susan Scherer** *(ALS Digital Signature)*
Project Coordinator

## Sample Summary

| Lab ID | Sample ID | Matrix | Date Collected | Date Received | Collector | Collection Company |
|---|---|---|---|---|---|---|
| 3428698001 | 3044 River Road, Conestoga, PA | Water | 08/04/2025 11:10 | 08/04/2025 16:40 | EMP | ALS Environmental-Middletown |

# Reference

## Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

## Standard Acronyms/Flags

| | |
|---|---|
| J | Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte |
| U | Indicates that the analyte was Not Detected (ND) above the MDL |
| N | Indicates presumptive evidence of the presence of a compound |
| MDL | Method Detection Limit |
| PQL | Practical Quantitation Limit |
| RDL | Practical Quantitation Limit for this Project |
| ND | Not Detected - indicates that the analyte was Not Detected |
| Cntr | Analysis was performed using this container |
| RegLmt | Regulatory Limit |
| LCS | Laboratory Control Sample |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| DUP | Sample Duplicate |
| %Rec | Percent Recovery |
| RPD | Relative Percent Difference |
| LOD | DoD Limit of Detection |
| LOQ | DoD Limit of Quantitation |
| DL | DoD Detection Limit |
| I | Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL) |
| (S) | Surrogate Compound |
| NC | Not Calculated |
| * | Result outside of QC limits |
| # | Please reference the result in the Results Section for analyte-level flags. |

## Project Notations

## Sample Notations

| Lab ID | Sample ID |
|---|---|

## Result Notations

| Notation Ref. | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 2 | The Method Blank for method SM2320B-2011 reported a value greater than the reporting level for the analyte Alkalinity, Total. The concentration was 10 |
| 3 | The Method Blank for method SM2320B-2011 reported a value greater than the reporting level for the analyte Alkalinity, Total. The concentration was 13.6 |
| 4 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 5 | The method blank associated with the sample was positive for Sodium, Total at 0.33175 mg/L. The Sodium, Total analyte concentration in the sample was ten times greater than the blank. According to the method this sample was commented and reported. MSY 08-15-25 |
| 6 | See attached subcontract results from Geochemical Labs for 9020B TOX. |

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | 3044 River Road, Conestoga, PA | Collected | 08/04/2025 11:10 |
| Lab Sample ID | 3428698001 | Lab Receipt | 08/04/2025 16:40 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| pH, Field (SM4500B) | 5.79 | pH_Units | | Field | # |
| Specific Conductance, Field | 257 | umhos/cm | 1 | Field | # |
| Temperature | 22.40 | Deg. C | | Field | # |
| **METALS** | | | | | |
| Calcium, Dissolved | 18.1 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 17.7 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 10.7 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 10.3 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.0069 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.0055 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 2.6 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 2.5 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 8.6 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 8.7 | mg/L | 0.25 | EPA 200.7 | # |
| **SUBCONTRACTED ANALYSIS** | | | | | |
| Subcontracted Analysis | See Attached | | | Subcontract | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 16 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 13 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 17.0 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 17.3 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 7.46 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 230 | umhos/cm | 5 | SM2510B-2011 | # |
| Total Dissolved Solids | 200 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 0.59 | mg/L | 0.50 | SM5310B-14 | # |
| Turbidity | 0.60 | NTU | 0.30 | SM2130B-2011 | # |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3044 River Road, Conestoga, PA | Collected | 08/04/2025 11:10 |
| Lab Sample ID | 3428698001 | Lab Receipt | 08/04/2025 16:40 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| pH, Field (SM4500B) | 5.79 | | pH_Units | | Field | 1 | 08/04/2025 11:10 | CLT | P |
| Specific Conductance, Field | 257 | | umhos/cm | 1 | Field | 1 | 08/04/2025 11:10 | CLT | P |
| Temperature | 22.40 | | Deg. C | | Field | 1 | 08/04/2025 11:10 | CLT | P |

## METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Calcium, Dissolved | 18.1 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/07/2025 17:33 | RBP | F |
| Calcium, Total | 17.7 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/14/2025 15:07 | MSY | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/07/2025 17:33 | RBP | F |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/14/2025 15:07 | MSY | D1 |
| Magnesium, Dissolved | 10.7 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/07/2025 17:33 | RBP | F |
| Magnesium, Total | 10.3 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/14/2025 15:07 | MSY | D1 |
| Manganese, Dissolved | 0.0069 | | mg/L | 0.0050 | EPA 200.7 | 1 | 08/07/2025 17:33 | RBP | F |
| Manganese, Total | 0.0055 | | mg/L | 0.0025 | EPA 200.7 | 1 | 08/14/2025 15:07 | MSY | D1 |
| Potassium, Dissolved | 2.6 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/07/2025 17:33 | RBP | F |
| Potassium, Total | 2.5 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/14/2025 15:07 | MSY | D1 |
| Sodium, Dissolved | 8.6 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/14/2025 16:30 | MSY | F |
| Sodium, Total | 8.7 | 5 | mg/L | 0.25 | EPA 200.7 | 1 | 08/14/2025 15:07 | MSY | D1 |

## SUBCONTRACTED ANALYSIS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Subcontracted Analysis | See Attached | 6 | | | Subcontract | 1 | 08/12/2025 16:14 | SUB | K |

## VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:36 | TMP | M |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:36 | TMP | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:36 | TMP | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:36 | TMP | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:36 | TMP | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:36 | TMP | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:36 | TMP | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:36 | TMP | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:36 | TMP | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:36 | TMP | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:36 | TMP | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:36 | TMP | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:36 | TMP | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:36 | TMP | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:36 | TMP | M |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:36 | TMP | M |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3044 River Road, Conestoga, PA | Collected | 08/04/2025 11:10 |
| Lab Sample ID | 3428698001 | Lab Receipt | 08/04/2025 16:40 |

## VOLATILE ORGANICS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 80.6% | 70 – 130 | 08/09/2025 17:36 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 16 | | mg/L | 5 | SM2320B-2011 | 1 | 08/07/2025 10:03 | MYM | A |
| Alkalinity, Total | 13 | 1,2,3 | mg/L | 5 | SM2320B-2011 | 1 | 08/13/2025 22:17 | JXK | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 08/06/2025 15:23 | AYS | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/07/2025 12:21 | KMS | C |
| Chloride | 17.0 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/05/2025 12:59 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/05/2025 12:59 | J1W | A |
| Nitrate-N | 17.3 | | mg/L | 1.0 | EPA 300.0 | 2 | 08/05/2025 12:59 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/05/2025 12:59 | J1W | A |
| pH | 7.46 | 4 | pH_Units | | S4500HB-11 | 1 | 08/07/2025 10:03 | MYM | A |
| Phenolics | ND | ND | mg/L | 0.005 | EPA 420.4 | 1 | 08/08/2025 13:38 | ZEB | J |
| Specific Conductance | 230 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/12/2025 07:45 | MYM | A |
| Sulfate | ND | ND | mg/L | 2.0 | EPA 300.0 | 2 | 08/05/2025 12:59 | J1W | A |
| Total Dissolved Solids | 200 | | mg/L | 25 | SM2540C-15 | 1 | 08/06/2025 14:40 | RAG | A |
| Total Organic Carbon (TOC) | 0.59 | | mg/L | 0.50 | SM5310B-14 | 1 | 08/05/2025 22:46 | PAG | H |
| Turbidity | 0.60 | | NTU | 0.30 | SM2130B-2011 | 1 | 08/05/2025 12:33 | GMM | A |

## Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3428698001 | 3044 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 200.7 | EPA TRMD | |
| | | Subcontract | N/A | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|---|---|---|---|---|---|---|---|
| 3428698001 | 3044 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | |
| | | EPA ACID | 1458879 | 08/07/2025 13:25 | RBP | EPA 200.7 | 1459843 |
| | | EPA TRMD | 1460388 | 08/13/2025 08:54 | RMH | EPA 200.7 | 1460626 |
| | | EPA ACID | 1458879 | 08/07/2025 13:25 | RBP | EPA 200.7 | 1459085 |
| | | N/A | N/A | N/A | | Subcontract | |
| | | N/A | N/A | N/A | | EPA 524.2 | 1459375 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1458294 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1458975 |
| | | SW846 9066 | 1459008 | 08/07/2025 10:48 | ZEB | EPA 420.4 | 1459016 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1458389 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1458748 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1458343 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1460044 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1458389 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1459883 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1458770 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1458426 |

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

# CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

3428698

Logged By: SLS
PM: SJB

of

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

**Client Name:** Lancaster County Solid Waste MA

**Address:** 1299 Harrisburg Pike, Lancaster Pa 17604

**Contact:** Dan Brown
**Phone#:** 717-553-5864
**Project Name/#:** LCSWMA Quarterly
**Bill To:** LCSWMA
**Purchase Order #:**

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

**Date Required:** **Approved?**
**Email?** [ ]

| Container Type | AG | AN | AN | CG | P | P | P | P | P | |
|---|---|---|---|---|---|---|---|---|---|---|
| Container Size | 40ml | 250ml | 125ml | 40ml | 500ml | 250ml | 125ml | 125ml | 1L | |
| Preservative | HCL | H2SO4 | H2SO4 | ASCHCL | UNP | H2SO4 | HNO3 | HNO3 | UNP | |

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

**ANALYSIS / METHOD REQUESTED**

| | Sample Description/Location (as it will appear on the lab report) | Date Collected mm/dd/yy | Time hh:mm | SDWA Sample Type (see key) | *G or C | **Matrix (See bottom of COC) | TOC | TOX | O-OH | EPA 524.2 Form 52 | Alkalinity, HCO3 | NH3-N, COD | Dissolved Metals Ca,Fe,Mg,Mn, K,Na | Metals Ca,Fe,Mg,Mn,K,Na | pH,TDS,NO2,NO3,Cl,SO4,F, SpC,Tb | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Enter Number of Containers Per Sample or Field Results Below. | | | | | | | | | |
| 1 | 3044RIVERRD | 8-4-25 | 1110 | | G | DW | 2 | 2 | 1 | 3 | 1 | 1 | 2 | 2 | 1 | |
| 2 | Trip Blank | 8-4-25 | 1112 | | G | Di | | | | 2 VOA | | | | | | |
| 3 | | | | | G | DI | | | | 3 | | | | | | |
| 4 | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |

Temp Taken By: Therm ID: WO Temp (°C) 3°

*Receipt Info completed by:* WV Containers 0-6°C Y N NA

| | | | |
|---|---|---|---|
| Cooler Custody Seals Intact | Y | N | NA |
| Sample Custody Seal Intact | Y | N | NA |
| Received on Ice | Y | N | NA |
| Coolers & Samples Intact | Y | N | |
| Correct Containers Provided | Y | N | |
| Sample Label/COC Agree | Y | N | |
| Adequate Sample Volumes | Y | N | |
| VOA only: Trip Blank | Y | N | NA |

NJ ≤ 4 days? Y N
Courier/Tracking #

Deviations? NO YES
If YES, list below:

**Client contact:**
*Date/Tech:*

Sample(s) for Radiation testing? Y N
Reportable SDWA Sample(s)? Y N
SDWA State of Origin?
PWSID #

Rad Screen (uCi)
New Source? Y N
New Source Contact:

PWS Contact: PWS Phone #:

**SDWA Sample Type Key:** D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

**Sample/COC Remarks**

**Contains Short Hold Testing** YES NO

**Internal Use: If less than 48 hours - notify lab upon receipt**

**Circle Sample Collector: ALS Tech / Client**
**Name:** Evan P **ID:**

**Comments:** PH- 5.79 temp. 22.4 Spc. 257

| Date: | Time | | Relinquished By / Company Name | | Received By / Company Name |
|---|---|---|---|---|---|
| 8.4.25 | 1640 | 1 | ALS | 2 | MRTS |
| | | 3 | | 4 | |
| | | 5 | | 6 | |
| | | 7 | | 8 | |
| | | 9 | | 10 | |

**Data Deliverables**
[ ] Standard Lvl 1 [ ] CLP-like [ ] HSCA
[ ] Standard Lvl 2 [ ] DOD [ ] Landfill
[ ] Standard Lvl 3 [ ] NJ RED [ ] NJ GW
[ ] Standard Lvl 4 [ ] NJ Full [ ] _____

**EDDs**
[ ] Excel Summary
[ ] Equis
[ ] Custom

**Sample Disposal**
Lab [x]
Special [ ]

**EDDS:** Format Type

**State Samples Collected In**
[ ] NY
[ ] NJ
[x] PA
[ ] WV
[ ] FL
[ ] other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

**ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057**

Rev 07.06.2023

# Middletown Sample Condition Form

Client Lancaster Co Workorder 3428698

Temp °C 3° Therm ID 649 Ice? (Y) N N/A Initials & Date DG 8/4/25

Fedex UPS Client ALS Other Tracking # _____

| | Yes | No[1] | N/A | Comments |
|---|---|---|---|---|
| Cooler Custody Seals present & intact | | | ✓ | |
| Sample Custody Seals present & intact | | | ✓ | |
| Chain-of-Custody present | ✓ | | | |
| Sample collector name present *If not present, must contact PM/client to request name.* | ✓ | | | |
| COC/bottle labels complete & in agreement | ✓ | | | |
| •Sample location | ✓ | | | |
| •Date and time of sample collection | ✓ | | | |
| •Type(s) of preservation | ✓ | | | |
| •Number of containers | ✓ | | | |
| •Composite or grab | ✓ | | | |
| •Matrix | ✓ | | | |
| Proper containers, preservation, and volume per method | ✓ | | | |
| Received within hold time | ✓ | | | |
| Containers intact | ✓ | | | |
| Trip blanks present (EPA 504, EPA 524) | ✓ | | | |
| Field blanks present (Hg 1631, PFAS) | | | ✓ | |
| NJ ≤ 4 Days | | | ✓ | |
| CR6 Samples Filtered | | | ✓ | |
| OP Samples Filtered | | | ✓ | |
| WV Containers 0-6°C | | | ✓ | |
| SDWA compliance reporting | | | ✓ | |

[1] *If No, provide comment*

Rad Screen (uCi) _____

PM - PM to contact client
N/A - Not Applicable
UC - Updated coc with missing information

Review Comments:

_____

_____

_____



8/23/2025 7:34 PM

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Tuesday, August 12, 2025

Susan Scherer
ALS ENVIRONMENTAL
301 FULLING MILL ROAD
MIDDLETOWN, PA 17057

Order No.: G2508396

Dear Susan Scherer:

Geochemical Testing received 1 sample(s) on 8/7/2025 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Joelle Streczywilk
Environmental Laboratory Manager

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

## Geochemical Testing

**Date:** *12-Aug-25*

**CLIENT:** ALS ENVIRONMENTAL
**Project:**
**Lab Order:** G2508396

# CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

**Glossary:**

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative
ND - Not Detected
MCL - Contaminant Limit
J - Indicates an estimated value.
Q - Qualifier
QL -Quantitation Limit
DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

# Glossary (continued)

1 Spike recovery limits are not applicable when the sample concentration exceeds the spike concentration by a factor of four or greater.

B1 Dilution water blank exceeded method criterion.

C1 CCV recovery above the acceptance limits. Results may be biased high.

C2 CCV recovery below the acceptance limits. Results may be biased low.

C3 ICV recovery above the acceptance limits. Results may be biased high.

C4 ICV recovery below the acceptance limits. Results may be biased low.

D1 The analysis did not meet the minimum DO depletion of at least 2 mg/L.

D2 The analysis did not meet the minimum residual DO of at least 1 mg/L.

D3 Sample required dilution due to a matrix interference.

D4 Sample was diluted in the extraction steps due to marked matrix interferences.

D5 Sample required dilution due to a chloride interference.

D6 Sample was diluted and the reporting limits were raised to achieve method compliant internal standard recovery.

D7 Sample was digested at a dilution due to the formation of a post-digestion precipitate.

D8 Sample was digested at a dilution to achieve method compliant matrix spike recovery.

D9 Sample was digested at a dilution to meet method compliant digestion criteria.

E2 Unable to obtain a stable weight within specified limits due to sample matrix. Value is estimated.

F1 Fecal sample tested positive for residual chlorine.

H1 Due to under-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H2 Due to over-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H3 Sample was re-analyzed outside of hold time due to error during original analysis.

H4 The Nitrite result used to report Nitrate was analyzed past the 48-hour holding time.

I1 Internal standard recovery above method acceptance limits. Results are estimated.

I2 Internal standard recovery was below method acceptance limits. Results are estimated.

IP One of the instrument performance checks ( ) did not meet the acceptance criteria.

L1 LCS above the acceptance limits. Result may be biased high.

L2 LCS below the acceptance limits. Result may be biased low.

L3 Analyte was spiked into the LCS, but was not recovered.

M1 Matrix Spike recovery above the acceptance limits.

M2 Matrix Spike recovery below the acceptance limits.

M4 The matrix spike failed high for the surrogate.

M5 The matrix spike failed low for the surrogate.

M6 The reporting limits were raised due to sample matrix interference.

M7 Recovery for matrix spike could not be quantified due to matrix interference.

M8 Analyte was spiked into the MS, but was not recovered.

M9 Analyte concentration was determined by the method of standard addition (MSA).

N1 The lab does not hold accreditation from PA-DEP for this parameter by this method

N2 PADEP does not accredit labs for this analyte by this method.

N3 The lab is accredited for this method in West Virginia, but not in PA (its primary accrediting body).

N4 PADEP does not accredit labs for this analyte by this method in drinking water.

O1 The flashpoint tester cannot detect below 50 degrees F.

O2 Result is temperature of the sample when flame observed. No flash observed. Result qualified.

O4 Sample was received with headspace.

O5 Sample was received in incorrect container and is not compliant with 40CFR136 Table II.

O6 Insufficient sample volume was received to comply with the method.

P1 The pH of the sample was >2 and is not compliant with 40CFR136 Table II.

P2 Sample contained residual chlorine and is not compliant with 40CFR136 Table II

P3 The pH of the sample was <10 and is not compliant with 40CFR136 Table II.

P4 Field preservation does not meet EPA or method recommendations for this analysis.

P5 Acid preservation may not be appropriate for the analysis of 2-Chloroethylvinyl ether.

P6 Sample required additional preservative upon receipt.

P7 The sample was received unpreserved.

P8 The pH of the sample was < 9 and is not compliant with 40 CFR136 Table II.

Q2 Reported lower result from the dual detector. See case narrative.

Q3 Sample detected multiple Aroclors. See case narrative.

Q4 Weathering or degradation observed for PCBs. See case narrative.

Q5 Positive PCB interference qualified in peak(s) that cannot be removed. See case narrative.

Q6 Peak Height/Area used in quantification is documented in the case narrative.

R Relative Percent Difference (RPD) was above the control limit.

R1 RPD above control limits between matrix spike and MS duplicates

R2 RPD above the control limit between duplicates.

R3 RSD above the control limit between replicates.

R4 RPD above control limits between Inorganic Carbon check and spike.

R5 RPD above control limits between control sample and control sample duplicates.

R6 Dual Column/Detector RDP >40%. Higher result reported.

S2 Surrogate recovery in the blank was below the control limit.

S3 Surrogate recovery in the blank was above the control limit.

S4 Surrogate recovery in the LCS is above the control limit.

S5 Surrogate recovery in the LCS is below the control limit.

SR Analyte recovery was outside the accepted recovery limits and above the control limit for RPD.

TC The MS tune check (tailing factor) did not meet the acceptance criteria.

# Laboratory Results

## Geochemical Testing

**Date:** *12-Aug-25*

| | | | |
|---|---|---|---|
| **CLIENT:** | ALS ENVIRONMENTAL | **Client Sample ID:** | 3428698001 |
| **Lab Order:** | G2508396 | | 3044 River Road, Conestoga, PA |
| **Project:** | | **Sampled By:** | ALS |
| **Lab ID:** | G2508396-001 | **Collection Date:** | 8/4/2025 11:10:00 AM |
| **Matrix:** | AQUEOUS | **Received Date:** | 8/7/2025 1:56:54 PM |

| Analyses | Result | QL | Q | Units | DF | Date Prepared | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **INDICATOR ORGANIC PARAMETERS** | | Analyst: **ACW** | | | | **EPA 9020 B** | **EPA 9020 B** |
| Total Organic Halogen | < 50 | 50 | O4 | µg/L | 1 | 08/08/25 5:00 AM | 08/08/25 1:22 PM |

**NOTES:**
O4 - Sample was received with headspace.

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 |

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**

Project 3RD QTR 2025 3052 RIVER RD
Workorder 3428697
Report ID 452099 on 8/23/2025

## Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 04, 2025.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

Susan Scherer

**Susan Scherer** *(ALS Digital Signature)*
Project Coordinator

## Sample Summary

| Lab ID | Sample ID | Matrix | Date Collected | Date Received | Collector | Collection Company |
|---|---|---|---|---|---|---|
| 3428697001 | 3052 River Road, Conestoga, PA | Water | 08/04/2025 12:20 | 08/04/2025 16:40 | EMP | ALS Environmental-Middletown |

# Reference

## Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

## Standard Acronyms/Flags

| | |
|---|---|
| J | Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte |
| U | Indicates that the analyte was Not Detected (ND) above the MDL |
| N | Indicates presumptive evidence of the presence of a compound |
| MDL | Method Detection Limit |
| PQL | Practical Quantitation Limit |
| RDL | Practical Quantitation Limit for this Project |
| ND | Not Detected - indicates that the analyte was Not Detected |
| Cntr | Analysis was performed using this container |
| RegLmt | Regulatory Limit |
| LCS | Laboratory Control Sample |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| DUP | Sample Duplicate |
| %Rec | Percent Recovery |
| RPD | Relative Percent Difference |
| LOD | DoD Limit of Detection |
| LOQ | DoD Limit of Quantitation |
| DL | DoD Detection Limit |
| I | Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL) |
| (S) | Surrogate Compound |
| NC | Not Calculated |
| * | Result outside of QC limits |
| # | Please reference the result in the Results Section for analyte-level flags. |

## Project Notations

## Sample Notations

| Lab ID | Sample ID |
|---|---|

## Result Notations

| Notation Ref. | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 3 | The method blank associated with the sample was positive for Sodium, Total at 0.33175 mg/L. The Sodium, Total analyte concentration in the sample was ten times greater than the blank. According to the method this sample was commented and reported. MSY 08-15-25 |
| 4 | See attached subcontract results for TOX from Geochemical Testing |

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | 3052 River Road, Conestoga, PA | Collected | 08/04/2025 12:20 |
| Lab Sample ID | 3428697001 | Lab Receipt | 08/04/2025 16:40 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| pH, Field (SM4500B) | 5.26 | pH_Units | | Field | # |
| Specific Conductance, Field | 234 | umhos/cm | 1 | Field | # |
| Temperature | 21.70 | Deg. C | | Field | # |
| **METALS** | | | | | |
| Calcium, Dissolved | 19.4 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 18.0 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 8.9 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 9.0 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.018 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.022 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 1.8 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 1.8 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 8.4 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 8.3 | mg/L | 0.25 | EPA 200.7 | # |
| **SUBCONTRACTED ANALYSIS** | | | | | |
| Subcontracted Analysis | See attached | | | Subcontract | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 8 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 8 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 18.6 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 16.8 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 7.01 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 226 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 2.3 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 203 | mg/L | 25 | SM2540C-15 | # |
| Turbidity | 0.50 | NTU | 0.30 | SM2130B-2011 | # |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3052 River Road, Conestoga, PA | Collected | 08/04/2025 12:20 |
| Lab Sample ID | 3428697001 | Lab Receipt | 08/04/2025 16:40 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| pH, Field (SM4500B) | 5.26 | | pH_Units | | Field | 1 | 08/04/2025 12:20 | E2P | P |
| Specific Conductance, Field | 234 | | umhos/cm | 1 | Field | 1 | 08/04/2025 12:20 | E2P | P |
| Temperature | 21.70 | | Deg. C | | Field | 1 | 08/04/2025 12:20 | E2P | P |

## METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Calcium, Dissolved | 19.4 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/07/2025 17:42 | RBP | F |
| Calcium, Total | 18.0 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/14/2025 15:58 | MSY | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/07/2025 17:42 | RBP | F |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/14/2025 15:58 | MSY | D1 |
| Magnesium, Dissolved | 8.9 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/07/2025 17:42 | RBP | F |
| Magnesium, Total | 9.0 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/14/2025 15:58 | MSY | D1 |
| Manganese, Dissolved | 0.018 | | mg/L | 0.0050 | EPA 200.7 | 1 | 08/07/2025 17:42 | RBP | F |
| Manganese, Total | 0.022 | | mg/L | 0.0025 | EPA 200.7 | 1 | 08/14/2025 15:58 | MSY | D1 |
| Potassium, Dissolved | 1.8 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/07/2025 17:42 | RBP | F |
| Potassium, Total | 1.8 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/14/2025 15:58 | MSY | D1 |
| Sodium, Dissolved | 8.4 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/14/2025 16:33 | MSY | F |
| Sodium, Total | 8.3 | 3 | mg/L | 0.25 | EPA 200.7 | 1 | 08/14/2025 15:58 | MSY | D1 |

## SUBCONTRACTED ANALYSIS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Subcontracted Analysis | See attached | 4 | | | Subcontract | 1 | 08/13/2025 16:38 | SUB | K |

## VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:14 | TMP | M |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:14 | TMP | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:14 | TMP | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:14 | TMP | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:14 | TMP | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:14 | TMP | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:14 | TMP | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:14 | TMP | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:14 | TMP | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:14 | TMP | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:14 | TMP | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:14 | TMP | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:14 | TMP | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:14 | TMP | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:14 | TMP | M |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 17:14 | TMP | M |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3052 River Road, Conestoga, PA | Collected | 08/04/2025 12:20 |
| Lab Sample ID | 3428697001 | Lab Receipt | 08/04/2025 16:40 |

## VOLATILE ORGANICS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 78.4% | 70 – 130 | 08/09/2025 17:14 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 8 | | mg/L | 5 | SM2320B-2011 | 1 | 08/07/2025 09:48 | MYM | A |
| Alkalinity, Total | 8 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 08/07/2025 09:48 | MYM | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 08/06/2025 15:59 | AYS | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/07/2025 12:21 | KMS | C |
| Chloride | 18.6 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/05/2025 12:48 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/05/2025 12:48 | J1W | A |
| Nitrate-N | 16.8 | | mg/L | 1.0 | EPA 300.0 | 2 | 08/05/2025 12:48 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/05/2025 12:48 | J1W | A |
| pH | 7.01 | 2 | pH_Units | | S4500HB-11 | 1 | 08/07/2025 09:48 | MYM | A |
| Phenolics | ND | ND | mg/L | 0.005 | EPA 420.4 | 1 | 08/08/2025 13:04 | ZEB | J |
| Specific Conductance | 226 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/12/2025 07:45 | MYM | A |
| Sulfate | 2.3 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/05/2025 12:48 | J1W | A |
| Total Dissolved Solids | 203 | | mg/L | 25 | SM2540C-15 | 1 | 08/06/2025 14:40 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-14 | 1 | 08/05/2025 22:46 | PAG | H |
| Turbidity | 0.50 | | NTU | 0.30 | SM2130B-2011 | 1 | 08/05/2025 12:33 | GMM | A |

## Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3428697001 | 3052 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 200.7 | EPA TRMD | |
| | | Subcontract | N/A | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|---|---|---|---|---|---|---|---|
| 3428697001 | 3052 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | |
| | | EPA ACID | 1458879 | 08/07/2025 13:25 | RBP | EPA 200.7 | 1459843 |
| | | EPA TRMD | 1460388 | 08/13/2025 08:54 | RMH | EPA 200.7 | 1460626 |
| | | EPA ACID | 1458879 | 08/07/2025 13:25 | RBP | EPA 200.7 | 1459085 |
| | | N/A | N/A | N/A | | Subcontract | |
| | | N/A | N/A | N/A | | EPA 524.2 | 1459375 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1458294 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1458975 |
| | | SW846 9066 | 1459008 | 08/07/2025 10:48 | ZEB | EPA 420.4 | 1459016 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1458389 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1458748 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1458343 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1458389 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1459883 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1458770 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1458426 |

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

# CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

3428697
Logged By: SLS
PM: SJB

17 of

(Receiving Lab)

**Client Name:** LCSWMA Gerald E Miller Sr

**Address:** 3052 River Rd
Conestoga PA 17516

**Contact:** Gerald E Miller Sr
**Phone#:** 717-872-5117
**Project Name/#:** LCSWMA Quarterly
**Bill To:** LCSWMA
**Purchase Order #:**

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

**Date Required:** **Approved?**
**Email?** [ ]

| Container Type | AG | AN | AN | CG | | P | P | P | P | P |
|---|---|---|---|---|---|---|---|---|---|---|
| Container Size | 40ml | 250ml | 125ml | 40ml | | 250ml | 125ml | 125ml | 1L | 500ml |
| Preservative | HCL | H2SO4 | H2SO4 | ASCHCL | | H2SO4 | HNO3 | HNO3 | UNP | UNP |

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

**ANALYSIS / METHOD REQUESTED**

| | Sample Description/Location (as it will appear on the lab report) | Date Collected mm/dd/yy | Time hh:mm | SDWA Sample Type (see key) | *G or C | **Matrix (See bottom of COC) | TOC | TOX | O-OH | EPA 524.2 Form 52 | FM | NH3-N, COD | Dissolved Metals Ca,Fe,Mg,Mn, K,Na | Metals Ca,Fe,Mg,Mn,K,Na | pH,TDS,NO2,NO3,Cl,SO4,F, SpC,Tb | Alkalinity, HCO3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Enter Number of Containers Per Sample or Field Results Below. | | | | | | | | | |
| 1 | 3052RIVERRD | 8.4.25 | 1220 | | G | DW | 2 | 2 | 1 | 3 | x | 1 | 2 | 2 | 1 | 1 |
| 2 | Trip Blank | 8.4.25 | N/A | | G | Di | | | | 2 | | | | | | |
| 3 | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |

Temp Taken By: Therm ID: WO Temp (°C) 3

*Receipt Info completed by:*_____ WV Containers 0-6°C Y N NA

| | | | |
|---|---|---|---|
| Cooler Custody Seals Intact | Y | N | NA |
| Sample Custody Seal Intact | Y | N | NA |
| Received on Ice | Y | N | NA |
| Coolers & Samples Intact | Y | N | |
| Correct Containers Provided | Y | N | |
| Sample Label/COC Agree | Y | N | |
| Adequate Sample Volumes | Y | N | |
| VOA only: Trip Blank | Y | N | NA |

NJ ≤ 4 days? Y N
Courier/Tracking #

Deviations? NO YES
If YES, list below:

**Client contact:**
*Date/Tech*

Sample(s) for Radiation testing? Y N Rad Screen (uCi)_____
Reportable SDWA Sample(s)? Y N New Source? Y N
SDWA State of Origin?_____ New Source Contact:
PWSID #__
PWS Contact:_____ PWS Phone #:_____

**SDWA Sample Type Key:** D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

**Sample/COC Remarks**

**Contains Short Hold Testing YES NO**
**Internal Use: If less than 48 hours - notify lab upon receipt**

**Circle Sample Collector: ALS Tech / Client**
**Name:** Evan **ID:**

**Comments:** PH-5.26 temp. 21.7c Spc 234

| Date: | Time | | Relinquished By / Company Name | | Received By / Company Name |
|---|---|---|---|---|---|
| 8.4.25 | 1640 | 1 | ALS | 2 | MRTY |
| | | 3 | | 4 | |
| | | 5 | | 6 | |
| | | 7 | | 8 | |
| | | 9 | | 10 | |

**Data Deliverables:** [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ] _____

**EDDs:** [ ] Excel Summary [ ] Equis [ ] Custom

**Sample Disposal:** Lab [x] Special [ ]

**EDDS:** Format Type

**State Samples Collected In:** [ ] NY [ ] NJ [x] PA [ ] WV [ ] FL [ ] other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

Rev 07.06.2023

# Middletown Sample Condition Form

Client LCSWMA Workorder 3478697

Temp °C 3 Therm ID 049 Ice? (Y) N N/A Initials & Date DG 8/4/25

Fedex UPS Client ALS Other Tracking # _____

| | Yes | No[1] | N/A | Comments |
|---|---|---|---|---|
| Cooler Custody Seals present & intact | | | ✓ | |
| Sample Custody Seals present & intact | | | ✓ | |
| Chain-of-Custody present | ✓ | | | |
| Sample collector name present *If not present, must contact PM/client to request name.* | ✓ | | | |
| COC/bottle labels complete & in agreement | ✓ | | | |
| •Sample location | ✓ | | | |
| •Date and time of sample collection | ✓ | | | |
| •Type(s) of preservation | ✓ | | | |
| •Number of containers | ✓ | | | |
| •Composite or grab | ✓ | | | |
| •Matrix | ✓ | | | |
| Proper containers, preservation, and volume per method | ✓ | | | |
| Received within hold time | ✓ | | | |
| Containers intact | ✓ | | | |
| Trip blanks present (EPA 504, EPA 524) | ✓ | | | |
| Field blanks present (Hg 1631, PFAS) | | | ✓ | |
| NJ ≤ 4 Days | | | ✓ | |
| CR6 Samples Filtered | | | ✓ | |
| OP Samples Filtered | | | ✓ | |
| WV Containers 0-6°C | | | ✓ | |
| SDWA compliance reporting | | | ✓ | |

[1] *If No, provide comment*

Rad Screen (uCi) _____

PM - PM to contact client
N/A - Not Applicable
UC - Updated coc with missing information

Review Comments:

_____

_____

_____

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Wednesday, August 13, 2025

Susan Scherer
ALS ENVIRONMENTAL
301 FULLING MILL ROAD
MIDDLETOWN, PA 17057

Order No.: G2508403

Dear Susan Scherer:

Geochemical Testing received 1 sample(s) on 8/7/2025 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Joelle Streczywilk
Environmental Laboratory Manager

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

## Geochemical Testing

**Date:** *13-Aug-25*

**CLIENT:** ALS ENVIRONMENTAL
**Project:**
**Lab Order:** G2508403

# CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

**Glossary:**

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative
ND - Not Detected
MCL - Contaminant Limit
J - Indicates an estimated value.
Q - Qualifier
QL -Quantitation Limit
DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

# Glossary (continued)

1 Spike recovery limits are not applicable when the sample concentration exceeds the spike concentration by a factor of four or greater.

B1 Dilution water blank exceeded method criterion.

C1 CCV recovery above the acceptance limits. Results may be biased high.

C2 CCV recovery below the acceptance limits. Results may be biased low.

C3 ICV recovery above the acceptance limits. Results may be biased high.

C4 ICV recovery below the acceptance limits. Results may be biased low.

D1 The analysis did not meet the minimum DO depletion of at least 2 mg/L.

D2 The analysis did not meet the minimum residual DO of at least 1 mg/L.

D3 Sample required dilution due to a matrix interference.

D4 Sample was diluted in the extraction steps due to marked matrix interferences.

D5 Sample required dilution due to a chloride interference.

D6 Sample was diluted and the reporting limits were raised to achieve method compliant internal standard recovery.

D7 Sample was digested at a dilution due to the formation of a post-digestion precipitate.

D8 Sample was digested at a dilution to achieve method compliant matrix spike recovery.

D9 Sample was digested at a dilution to meet method compliant digestion criteria.

E2 Unable to obtain a stable weight within specified limits due to sample matrix. Value is estimated.

F1 Fecal sample tested positive for residual chlorine.

H1 Due to under-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H2 Due to over-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H3 Sample was re-analyzed outside of hold time due to error during original analysis.

H4 The Nitrite result used to report Nitrate was analyzed past the 48-hour holding time.

I1 Internal standard recovery above method acceptance limits. Results are estimated.

I2 Internal standard recovery was below method acceptance limits. Results are estimated.

IP One of the instrument performance checks ( ) did not meet the acceptance criteria.

L1 LCS above the acceptance limits. Result may be biased high.

L2 LCS below the acceptance limits. Result may be biased low.

L3 Analyte was spiked into the LCS, but was not recovered.

M1 Matrix Spike recovery above the acceptance limits.

M2 Matrix Spike recovery below the acceptance limits.

M4 The matrix spike failed high for the surrogate.

M5 The matrix spike failed low for the surrogate.

M6 The reporting limits were raised due to sample matrix interference.

M7 Recovery for matrix spike could not be quantified due to matrix interference.

M8 Analyte was spiked into the MS, but was not recovered.

M9 Analyte concentration was determined by the method of standard addition (MSA).

N1 The lab does not hold accreditation from PA-DEP for this parameter by this method

N2 PADEP does not accredit labs for this analyte by this method.

N3 The lab is accredited for this method in West Virginia, but not in PA (its primary accrediting body).

N4 PADEP does not accredit labs for this analyte by this method in drinking water.

O1 The flashpoint tester cannot detect below 50 degrees F.

O2 Result is temperature of the sample when flame observed. No flash observed. Result qualified.

O4 Sample was received with headspace.

O5 Sample was received in incorrect container and is not compliant with 40CFR136 Table II.

O6 Insufficient sample volume was received to comply with the method.

P1 The pH of the sample was >2 and is not compliant with 40CFR136 Table II.

P2 Sample contained residual chlorine and is not compliant with 40CFR136 Table II

P3 The pH of the sample was <10 and is not compliant with 40CFR136 Table II.

P4 Field preservation does not meet EPA or method recommendations for this analysis.

P5 Acid preservation may not be appropriate for the analysis of 2-Chloroethylvinyl ether.

P6 Sample required additional preservative upon receipt.

P7 The sample was received unpreserved.

P8 The pH of the sample was < 9 and is not compliant with 40 CFR136 Table II.

Q2 Reported lower result from the dual detector. See case narrative.

Q3 Sample detected multiple Aroclors. See case narrative.

Q4 Weathering or degradation observed for PCBs. See case narrative.

Q5 Positive PCB interference qualified in peak(s) that cannot be removed. See case narrative.

Q6 Peak Height/Area used in quantification is documented in the case narrative.

R Relative Percent Difference (RPD) was above the control limit.

R1 RPD above control limits between matrix spike and MS duplicates

R2 RPD above the control limit between duplicates.

R3 RSD above the control limit between replicates.

R4 RPD above control limits between Inorganic Carbon check and spike.

R5 RPD above control limits between control sample and control sample duplicates.

R6 Dual Column/Detector RDP >40%. Higher result reported.

S2 Surrogate recovery in the blank was below the control limit.

S3 Surrogate recovery in the blank was above the control limit.

S4 Surrogate recovery in the LCS is above the control limit.

S5 Surrogate recovery in the LCS is below the control limit.

SR Analyte recovery was outside the accepted recovery limits and above the control limit for RPD.

TC The MS tune check (tailing factor) did not meet the acceptance criteria.

# Laboratory Results

## Geochemical Testing

**Date:** *13-Aug-25*

| | | | |
|---|---|---|---|
| **CLIENT:** | ALS ENVIRONMENTAL | **Client Sample ID:** | 3428697001 |
| **Lab Order:** | G2508403 | | 3052 River Road, Conestoga, PA |
| **Project:** | | **Sampled By:** | ALS |
| **Lab ID:** | G2508403-001 | **Collection Date:** | 8/4/2025 12:20:00 PM |
| **Matrix:** | AQUEOUS | **Received Date:** | 8/7/2025 2:17:07 PM |

| Analyses | Result | QL | Q | Units | DF | Date Prepared | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **INDICATOR ORGANIC PARAMETERS** | | Analyst: **ACW** | | | | **EPA 9020 B** | **EPA 9020 B** |
| Total Organic Halogen | < 50 | 50 | O4 | µg/L | 1 | 08/11/25 5:00 AM | 08/11/25 10:01 AM |

**NOTES:**
O4 - Sample was received with headspace.

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 |

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**

Project 3RD QTR 2025-3060 RIVER RD
Workorder 3428695
Report ID 452104 on 8/23/2025

## Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 04, 2025.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

Susan Scherer
**Susan Scherer** *(ALS Digital Signature)*
Project Coordinator

## Sample Summary

| Lab ID | Sample ID | Matrix | Date Collected | Date Received | Collector | Collection Company |
|---|---|---|---|---|---|---|
| 3428695001 | 3060RIVERRD | Water | 08/04/2025 15:20 | 08/04/2025 16:40 | EMP | ALS Environmental-Middletown |

# Reference

## Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

## Standard Acronyms/Flags

| | |
|---|---|
| J | Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte |
| U | Indicates that the analyte was Not Detected (ND) above the MDL |
| N | Indicates presumptive evidence of the presence of a compound |
| MDL | Method Detection Limit |
| PQL | Practical Quantitation Limit |
| RDL | Practical Quantitation Limit for this Project |
| ND | Not Detected - indicates that the analyte was Not Detected |
| Cntr | Analysis was performed using this container |
| RegLmt | Regulatory Limit |
| LCS | Laboratory Control Sample |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| DUP | Sample Duplicate |
| %Rec | Percent Recovery |
| RPD | Relative Percent Difference |
| LOD | DoD Limit of Detection |
| LOQ | DoD Limit of Quantitation |
| DL | DoD Detection Limit |
| I | Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL) |
| (S) | Surrogate Compound |
| NC | Not Calculated |
| * | Result outside of QC limits |
| # | Please reference the result in the Results Section for analyte-level flags. |

## Project Notations

## Sample Notations

| Lab ID | Sample ID |
|---|---|

## Result Notations

| Notation Ref. | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 2 | The QC sample type MS for method EPA 350.1 was outside the control limits for the analyte Ammonia-N, Low Level. The % Recovery was reported as 67.6 and the control limits were 80 to 120. |
| 3 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 4 | The QC sample type MS for method SW846 9066 was outside the control limits for the analyte Phenolics. The % Recovery was reported as 124 and the control limits were 90 to 110. |
| 5 | See attached subcontract results from Geochemical Labs for 9020B TOX. |

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | 3060RIVERRD | Collected | 08/04/2025 15:20 |
| Lab Sample ID | 3428695001 | Lab Receipt | 08/04/2025 16:40 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| pH, Field (SM4500B) | 5.12 | pH_Units | | Field | # |
| Specific Conductance, Field | 245 | umhos/cm | 1 | Field | # |
| Temperature | 23.10 | Deg. C | | Field | # |
| **METALS** | | | | | |
| Calcium, Dissolved | 12.5 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 11.7 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 12.7 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 12.0 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.11 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.10 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 2.8 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 3.0 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 9.2 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 9.2 | mg/L | 0.25 | EPA 200.7 | # |
| **SUBCONTRACTED ANALYSIS** | | | | | |
| Subcontracted Analysis | See Attached | | | Subcontract | # |
| **WET CHEMISTRY** | | | | | |
| Chloride | 16.3 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 15.6 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.69 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 223 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 11.4 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 156 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 0.83 | mg/L | 0.50 | SM5310B-14 | # |
| Turbidity | 0.50 | NTU | 0.30 | SM2130B-2011 | # |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3060RIVERRD | Collected | 08/04/2025 15:20 |
| Lab Sample ID | 3428695001 | Lab Receipt | 08/04/2025 16:40 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| pH, Field (SM4500B) | 5.12 | | pH_Units | | Field | 1 | 08/04/2025 15:20 | E2P | P |
| Specific Conductance, Field | 245 | | umhos/cm | 1 | Field | 1 | 08/04/2025 15:20 | E2P | P |
| Temperature | 23.10 | | Deg. C | | Field | 1 | 08/04/2025 15:20 | E2P | P |

## METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Calcium, Dissolved | 12.5 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/07/2025 17:30 | RBP | F |
| Calcium, Total | 11.7 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/14/2025 14:24 | MSY | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/07/2025 17:30 | RBP | F |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/14/2025 14:24 | MSY | D1 |
| Magnesium, Dissolved | 12.7 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/07/2025 17:30 | RBP | F |
| Magnesium, Total | 12.0 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/14/2025 14:24 | MSY | D1 |
| Manganese, Dissolved | 0.11 | | mg/L | 0.0050 | EPA 200.7 | 1 | 08/07/2025 17:30 | RBP | F |
| Manganese, Total | 0.10 | | mg/L | 0.0025 | EPA 200.7 | 1 | 08/14/2025 14:24 | MSY | D1 |
| Potassium, Dissolved | 2.8 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/07/2025 17:30 | RBP | F |
| Potassium, Total | 3.0 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/14/2025 14:24 | MSY | D1 |
| Sodium, Dissolved | 9.2 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/14/2025 16:28 | MSY | F |
| Sodium, Total | 9.2 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/14/2025 14:24 | MSY | D1 |

## SUBCONTRACTED ANALYSIS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Subcontracted Analysis | See Attached | 5 | | | Subcontract | 1 | 08/12/2025 16:16 | SUB | K |

## VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 16:05 | TMP | M |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 16:05 | TMP | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 16:05 | TMP | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 16:05 | TMP | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 16:05 | TMP | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 16:05 | TMP | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 16:05 | TMP | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 16:05 | TMP | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 16:05 | TMP | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 16:05 | TMP | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 16:05 | TMP | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 16:05 | TMP | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 16:05 | TMP | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 16:05 | TMP | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 16:05 | TMP | M |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/09/2025 16:05 | TMP | M |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3060RIVERRD | Collected | 08/04/2025 15:20 |
| Lab Sample ID | 3428695001 | Lab Receipt | 08/04/2025 16:40 |

## VOLATILE ORGANICS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 78.9% | 70 – 130 | 08/09/2025 16:05 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | ND | ND | mg/L | 5 | SM2320B-2011 | 1 | 08/07/2025 09:26 | MYM | A |
| Alkalinity, Total | ND | ND,1 | mg/L | 5 | SM2320B-2011 | 1 | 08/07/2025 09:26 | MYM | A |
| Ammonia-N, Low Level | ND | ND,2 | mg/L | 0.10 | SM 4500-NH3G | 1 | 08/06/2025 14:57 | AYS | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/07/2025 12:21 | KMS | C |
| Chloride | 16.3 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/05/2025 12:25 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/05/2025 12:25 | J1W | A |
| Nitrate-N | 15.6 | | mg/L | 1.0 | EPA 300.0 | 2 | 08/05/2025 12:25 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/05/2025 12:25 | J1W | A |
| pH | 6.69 | 3 | pH_Units | | S4500HB-11 | 1 | 08/07/2025 09:26 | MYM | A |
| Phenolics | ND | ND,4 | mg/L | 0.005 | EPA 420.4 | 1 | 08/08/2025 13:07 | ZEB | J |
| Specific Conductance | 223 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/12/2025 07:45 | MYM | A |
| Sulfate | 11.4 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/05/2025 12:25 | J1W | A |
| Total Dissolved Solids | 156 | | mg/L | 25 | SM2540C-15 | 1 | 08/06/2025 14:40 | RAG | A |
| Total Organic Carbon (TOC) | 0.83 | | mg/L | 0.50 | SM5310B-14 | 1 | 08/05/2025 22:46 | PAG | H |
| Turbidity | 0.50 | | NTU | 0.30 | SM2130B-2011 | 1 | 08/05/2025 12:33 | GMM | A |

## Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3428695001 | 3060RIVERRD | Field | N/A | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 200.7 | EPA TRMD | |
| | | Subcontract | N/A | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|---|---|---|---|---|---|---|---|
| 3428695001 | 3060RIVERRD | N/A | N/A | N/A | | Field | |
| | | EPA ACID | 1458879 | 08/07/2025 13:25 | RBP | EPA 200.7 | 1459843 |
| | | EPA TRMD | 1460389 | 08/13/2025 08:54 | RMH | EPA 200.7 | 1460625 |
| | | EPA ACID | 1458879 | 08/07/2025 13:25 | RBP | EPA 200.7 | 1459085 |
| | | N/A | N/A | N/A | | Subcontract | |
| | | N/A | N/A | N/A | | EPA 524.2 | 1459375 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1458294 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1458975 |
| | | SW846 9066 | 1459008 | 08/07/2025 10:48 | ZEB | EPA 420.4 | 1459016 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1458389 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1458748 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1458343 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1458389 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1459883 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1458770 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1458426 |

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

# CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

3428695

Logged By: SLS
PM: SJB

of

(Filled by Receiving Lab)
WO Temp (°C) 3

**Client Name:** Lancaster County Solid Waste MA

**Address:** 1299 Harrisburg pike
Lancaster PA 17604

**Contact:** Dan Brown
**Phone#:** 717-553-5864
**Project Name/#:** LCSWMA Quarterly
**Bill To:** LCSWMA
**Purchase Order #:**
**TAT** [x] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
**Date Required:** **Approved?**
**Email?** [ ]

| Container Type | AG | AN | AN | CG | | P | P | P | P | |
|---|---|---|---|---|---|---|---|---|---|---|
| Container Size | 40ml | 250ml | 125ml | 40ml | | 250ml | 125ml | 125ml | 1L | 500ml |
| Preservative | HCL | H2SO4 | H2SO4 | ASCHCL | | H2SO4 | HNO3 | HNO3 | UNP | UNP |

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

**ANALYSIS / METHOD REQUESTED**

| | Sample Description/Location (as it will appear on the lab report) | Date Collected mm/dd/yy | Time hh:mm | SDWA Sample Type (see key) | *G or C | **Matrix (See bottom of COC) | TOC | TOX | O-OH | EPA 524.2 Form 52 | FM | NH3-N, COD | Dissolved Metals Ca,Fe,Mg,Mn, K,Na | Metals Ca,Fe,Mg,Mn,K,Na | pH,TDS,NO2,NO3,Cl,SO4,F, SpC,Tb | Alkalinity, HCO3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Enter Number of Containers Per Sample or Field Results Below. | | | | | | | | | | | | | | | |
| 1 | 3060RIVERRD | 8-4-25 | 1530 | | G | DW | 2 | 2 | 1 | 3 | x | 1 | 2 | 2 | 1 | 1 |
| 2 | Trip Blank | 8-4-25 | N/A | | G | Di | | | | 2 | | | | | | |
| 3 | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |

*Receipt Info completed by:*_____ WV Containers 0-6°C Y N NA

| | | | |
|---|---|---|---|
| Cooler Custody Seals Intact | Y | N | NA |
| Sample Custody Seal Intact | Y | N | NA |
| Received on Ice | Y | N | NA |
| Coolers & Samples Intact | Y | N | |
| Correct Containers Provided | Y | N | |
| Sample Label/COC Agree | Y | N | |
| Adequate Sample Volumes | Y | N | |
| VOA only: Trip Blank | Y | N | NA |

NJ ≤ 4 days? Y N
Courier/Tracking #

Deviations? NO YES
If YES, list below:

**Client contact:**
*Date/Tech:*

Sample(s) for Radiation testing? Y N
Reportable SDWA Sample(s)? Y N
SDWA State of Origin?_____
PWSID #__

Rad Screen (uCi)_____
New Source? Y N
New Source Contact:

PWS Contact:_____ PWS Phone #:_____

**SDWA Sample Type Key:** D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup

**Sample/COC Remarks**

**Contains Short Hold Testing YES NO**

**Internal Use: If less than 48 hours - notify lab upon receipt**

**Circle Sample Collector: ALS Tech / Client**
**Name:** **ID:**

**Comments:** PH-5.12 temp. 23.1°C Spc-245

| Date: | Time | | Relinquished By / Company Name | | Received By / Company Name |
|---|---|---|---|---|---|
| 8-4-25 | 1640 | 1 | ALS | 2 | MRTG |
| | | 3 | | 4 | |
| | | 5 | | 6 | |
| | | 7 | | 8 | |
| | | 9 | | 10 | |

**Data Deliverables:** [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ] _____

**EDDs:** [ ] Excel Summary [ ] Equis [ ] Custom

**Sample Disposal:** Lab [x] Special [ ]

**EDDS:** Format Type

**State Samples Collected In:** [ ] NY [ ] NJ [x] PA [ ] WV [ ] FL [ ] other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

**ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057**

Rev 07.06.2023

# Middletown Sample Condition Form

Client Lancaster County Workorder 3472869S

Temp °C 3' Therm ID 049 Ice? (Y) N N/A Initials & Date DB 8/4/25

Fedex UPS Client ALS Other Tracking # _____

| | Yes | No[1] | N/A | Comments |
|---|---|---|---|---|
| Cooler Custody Seals present & intact | | | ✓ | |
| Sample Custody Seals present & intact | | | ✓ | |
| Chain-of-Custody present | ✓ | | | |
| Sample collector name present *If not present, must contact PM/client to request name.* | ✓ | | | |
| COC/bottle labels complete & in agreement | ✓ | | | |
| •Sample location | ✓ | | | |
| •Date and time of sample collection | ✓ | | | |
| •Type(s) of preservation | ✓ | | | |
| •Number of containers | ✓ | | | |
| •Composite or grab | ✓ | | | |
| •Matrix | ✓ | | | |
| Proper containers, preservation, and volume per method | ✓ | | | |
| Received within hold time | ✓ | | | |
| Containers intact | ✓ | | | |
| Trip blanks present (EPA 504, EPA 524) | ✓ | | | |
| Field blanks present (Hg 1631, PFAS) | | | ✓ | |
| NJ ≤ 4 Days | | | ✓ | |
| CR6 Samples Filtered | | | ✓ | |
| OP Samples Filtered | | | ✓ | |
| WV Containers 0-6°C | | | ✓ | |
| SDWA compliance reporting | | | ✓ | |

[1] *If No, provide comment*

Rad Screen (uCi) _____

PM - PM to contact client
N/A - Not Applicable
UC - Updated coc with missing information

Review Comments:

_____

_____

_____

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Tuesday, August 12, 2025

Susan Scherer
ALS ENVIRONMENTAL
301 FULLING MILL ROAD
MIDDLETOWN, PA 17057

Order No.: G2508398

Dear Susan Scherer:

Geochemical Testing received 1 sample(s) on 8/7/2025 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Joelle Streczywilk
Environmental Laboratory Manager

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

## Geochemical Testing

**Date:** *12-Aug-25*

**CLIENT:** ALS ENVIRONMENTAL
**Project:**
**Lab Order:** G2508398

# CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

**Glossary:**

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative
ND - Not Detected
MCL - Contaminant Limit
J - Indicates an estimated value.
Q - Qualifier
QL -Quantitation Limit
DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

# Glossary (continued)

1 Spike recovery limits are not applicable when the sample concentration exceeds the spike concentration by a factor of four or greater.

B1 Dilution water blank exceeded method criterion.

C1 CCV recovery above the acceptance limits. Results may be biased high.

C2 CCV recovery below the acceptance limits. Results may be biased low.

C3 ICV recovery above the acceptance limits. Results may be biased high.

C4 ICV recovery below the acceptance limits. Results may be biased low.

D1 The analysis did not meet the minimum DO depletion of at least 2 mg/L.

D2 The analysis did not meet the minimum residual DO of at least 1 mg/L.

D3 Sample required dilution due to a matrix interference.

D4 Sample was diluted in the extraction steps due to marked matrix interferences.

D5 Sample required dilution due to a chloride interference.

D6 Sample was diluted and the reporting limits were raised to achieve method compliant internal standard recovery.

D7 Sample was digested at a dilution due to the formation of a post-digestion precipitate.

D8 Sample was digested at a dilution to achieve method compliant matrix spike recovery.

D9 Sample was digested at a dilution to meet method compliant digestion criteria.

E2 Unable to obtain a stable weight within specified limits due to sample matrix. Value is estimated.

F1 Fecal sample tested positive for residual chlorine.

H1 Due to under-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H2 Due to over-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H3 Sample was re-analyzed outside of hold time due to error during original analysis.

H4 The Nitrite result used to report Nitrate was analyzed past the 48-hour holding time.

I1 Internal standard recovery above method acceptance limits. Results are estimated.

I2 Internal standard recovery was below method acceptance limits. Results are estimated.

IP One of the instrument performance checks ( ) did not meet the acceptance criteria.

L1 LCS above the acceptance limits. Result may be biased high.

L2 LCS below the acceptance limits. Result may be biased low.

L3 Analyte was spiked into the LCS, but was not recovered.

M1 Matrix Spike recovery above the acceptance limits.

M2 Matrix Spike recovery below the acceptance limits.

M4 The matrix spike failed high for the surrogate.

M5 The matrix spike failed low for the surrogate.

M6 The reporting limits were raised due to sample matrix interference.

M7 Recovery for matrix spike could not be quantified due to matrix interference.

M8 Analyte was spiked into the MS, but was not recovered.

M9 Analyte concentration was determined by the method of standard addition (MSA).

N1 The lab does not hold accreditation from PA-DEP for this parameter by this method

N2 PADEP does not accredit labs for this analyte by this method.

N3 The lab is accredited for this method in West Virginia, but not in PA (its primary accrediting body).

N4 PADEP does not accredit labs for this analyte by this method in drinking water.

O1 The flashpoint tester cannot detect below 50 degrees F.

O2 Result is temperature of the sample when flame observed. No flash observed. Result qualified.

O4 Sample was received with headspace.

O5 Sample was received in incorrect container and is not compliant with 40CFR136 Table II.

O6 Insufficient sample volume was received to comply with the method.

P1 The pH of the sample was >2 and is not compliant with 40CFR136 Table II.

P2 Sample contained residual chlorine and is not compliant with 40CFR136 Table II

P3 The pH of the sample was <10 and is not compliant with 40CFR136 Table II.

P4 Field preservation does not meet EPA or method recommendations for this analysis.

P5 Acid preservation may not be appropriate for the analysis of 2-Chloroethylvinyl ether.

P6 Sample required additional preservative upon receipt.

P7 The sample was received unpreserved.

P8 The pH of the sample was < 9 and is not compliant with 40 CFR136 Table II.

Q2 Reported lower result from the dual detector. See case narrative.

Q3 Sample detected multiple Aroclors. See case narrative.

Q4 Weathering or degradation observed for PCBs. See case narrative.

Q5 Positive PCB interference qualified in peak(s) that cannot be removed. See case narrative.

Q6 Peak Height/Area used in quantification is documented in the case narrative.

R Relative Percent Difference (RPD) was above the control limit.

R1 RPD above control limits between matrix spike and MS duplicates

R2 RPD above the control limit between duplicates.

R3 RSD above the control limit between replicates.

R4 RPD above control limits between Inorganic Carbon check and spike.

R5 RPD above control limits between control sample and control sample duplicates.

R6 Dual Column/Detector RDP >40%. Higher result reported.

S2 Surrogate recovery in the blank was below the control limit.

S3 Surrogate recovery in the blank was above the control limit.

S4 Surrogate recovery in the LCS is above the control limit.

S5 Surrogate recovery in the LCS is below the control limit.

SR Analyte recovery was outside the accepted recovery limits and above the control limit for RPD.

TC The MS tune check (tailing factor) did not meet the acceptance criteria.

# Laboratory Results

## Geochemical Testing

**Date:** *12-Aug-25*

| | | | |
|---|---|---|---|
| **CLIENT:** | ALS ENVIRONMENTAL | **Client Sample ID:** | 3428695001 |
| **Lab Order:** | G2508398 | | 3060RIVERRD |
| **Project:** | | **Sampled By:** | ALS |
| **Lab ID:** | G2508398-001 | **Collection Date:** | 8/4/2025 3:20:00 PM |
| **Matrix:** | AQUEOUS | **Received Date:** | 8/7/2025 2:03:31 PM |

| Analyses | Result | QL | Q | Units | DF | Date Prepared | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **INDICATOR ORGANIC PARAMETERS** | | Analyst: **ACW** | | | | **EPA 9020 B** | **EPA 9020 B** |
| Total Organic Halogen | < 50 | 50 | | µg/L | 1 | 08/08/25 5:00 AM | 08/08/25 2:22 PM |

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 |

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**

Project 3rd QTR 2025-3076 RIVER RD
Workorder 3429257
Report ID 452137 on 8/23/2025

## Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 06, 2025.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

Susan Scherer

**Susan Scherer** *(ALS Digital Signature)*
Project Coordinator

## Sample Summary

| Lab ID | Sample ID | Matrix | Date Collected | Date Received | Collector | Collection Company |
|---|---|---|---|---|---|---|
| 3429257001 | 3076 River Road, Conestoga, PA | Water | 08/06/2025 10:00 | 08/06/2025 16:40 | EMP | ALS Environmental-Middletown |

# Reference

## Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

## Standard Acronyms/Flags

| | |
|---|---|
| J | Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte |
| U | Indicates that the analyte was Not Detected (ND) above the MDL |
| N | Indicates presumptive evidence of the presence of a compound |
| MDL | Method Detection Limit |
| PQL | Practical Quantitation Limit |
| RDL | Practical Quantitation Limit for this Project |
| ND | Not Detected - indicates that the analyte was Not Detected |
| Cntr | Analysis was performed using this container |
| RegLmt | Regulatory Limit |
| LCS | Laboratory Control Sample |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| DUP | Sample Duplicate |
| %Rec | Percent Recovery |
| RPD | Relative Percent Difference |
| LOD | DoD Limit of Detection |
| LOQ | DoD Limit of Quantitation |
| DL | DoD Detection Limit |
| I | Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL) |
| (S) | Surrogate Compound |
| NC | Not Calculated |
| * | Result outside of QC limits |
| # | Please reference the result in the Results Section for analyte-level flags. |

## Project Notations

## Sample Notations

| Lab ID | Sample ID |
|---|---|

## Result Notations

| Notation Ref. | |
|---|---|
| 1 | The Method Blank for method SM2320B-2011 reported a value greater than the reporting level for the analyte Alkalinity, Total. The concentration was 10 |
| 2 | The Method Blank for method SM2320B-2011 reported a value greater than the reporting level for the analyte Alkalinity, Total. The concentration was 13.6 |
| 3 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 4 | The QC sample type STD 10 for method S4500HB-11 was outside the control limits for the analyte pH. The % Recovery was reported as 99.9 and the control limits were 100 to 101. |
| 5 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 6 | See attached subcontract results for TOX from Geochemical Testing |

# Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | 3076 River Road, Conestoga, PA | Collected | 08/06/2025 10:00 |
| Lab Sample ID | 3429257001 | Lab Receipt | 08/06/2025 16:40 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| pH, Field (SM4500B) | 5.12 | pH_Units | | Field | # |
| Specific Conductance, Field | 300 | umhos/cm | 1 | Field | # |
| Temperature | 19.50 | Deg. C | | Field | # |
| **METALS** | | | | | |
| Calcium, Dissolved | 14.3 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 13.7 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 8.2 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 8.0 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.13 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.12 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 3.2 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 3.0 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 24.3 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 22.8 | mg/L | 0.25 | EPA 200.7 | # |
| **SUBCONTRACTED ANALYSIS** | | | | | |
| Subcontracted Analysis | See attached | | | Subcontract | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 7 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 7 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 46.3 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 8.5 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.91 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 283 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 10.5 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 188 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 0.52 | mg/L | 0.50 | SM5310B-14 | # |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3076 River Road, Conestoga, PA | Collected | 08/06/2025 10:00 |
| Lab Sample ID | 3429257001 | Lab Receipt | 08/06/2025 16:40 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| pH, Field (SM4500B) | 5.12 | | pH_Units | | Field | 1 | 08/06/2025 10:00 | E2P | P |
| Specific Conductance, Field | 300 | | umhos/cm | 1 | Field | 1 | 08/06/2025 10:00 | E2P | P |
| Temperature | 19.50 | | Deg. C | | Field | 1 | 08/06/2025 10:00 | E2P | P |

## METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Calcium, Dissolved | 14.3 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/14/2025 19:09 | MSY | F |
| Calcium, Total | 13.7 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/18/2025 13:04 | MSY | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/14/2025 19:09 | MSY | F |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/18/2025 13:04 | MSY | D1 |
| Magnesium, Dissolved | 8.2 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/14/2025 19:09 | MSY | F |
| Magnesium, Total | 8.0 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/18/2025 13:04 | MSY | D1 |
| Manganese, Dissolved | 0.13 | | mg/L | 0.0050 | EPA 200.7 | 1 | 08/14/2025 19:09 | MSY | F |
| Manganese, Total | 0.12 | | mg/L | 0.0025 | EPA 200.7 | 1 | 08/18/2025 13:04 | MSY | D1 |
| Potassium, Dissolved | 3.2 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/14/2025 19:09 | MSY | F |
| Potassium, Total | 3.0 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/18/2025 13:04 | MSY | D1 |
| Sodium, Dissolved | 24.3 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/14/2025 19:09 | MSY | F |
| Sodium, Total | 22.8 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/18/2025 13:04 | MSY | D1 |

## SUBCONTRACTED ANALYSIS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Subcontracted Analysis | See attached | 6 | | | Subcontract | 1 | 08/13/2025 16:42 | SUB | K |

## VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 14:45 | TMP | M |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 14:45 | TMP | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 14:45 | TMP | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 14:45 | TMP | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 14:45 | TMP | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 14:45 | TMP | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 14:45 | TMP | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 14:45 | TMP | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 14:45 | TMP | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 14:45 | TMP | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 14:45 | TMP | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 14:45 | TMP | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 14:45 | TMP | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 14:45 | TMP | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 14:45 | TMP | M |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 14:45 | TMP | M |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3076 River Road, Conestoga, PA | Collected | 08/06/2025 10:00 |
| Lab Sample ID | 3429257001 | Lab Receipt | 08/06/2025 16:40 |

## VOLATILE ORGANICS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 87.1% | 70 – 130 | 08/15/2025 14:45 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 7 | | mg/L | 5 | SM2320B-2011 | 1 | 08/14/2025 07:36 | JXK | A |
| Alkalinity, Total | 7 | 1,2,3 | mg/L | 5 | SM2320B-2011 | 1 | 08/14/2025 07:36 | JXK | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 08/11/2025 14:18 | AYS | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/11/2025 10:55 | KMS | C |
| Chloride | 46.3 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/07/2025 12:18 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/07/2025 12:18 | J1W | A |
| Nitrate-N | 8.5 | | mg/L | 1.0 | EPA 300.0 | 2 | 08/07/2025 12:18 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/07/2025 12:18 | J1W | A |
| pH | 6.91 | 4,5 | pH_Units | | S4500HB-11 | 1 | 08/14/2025 07:36 | JXK | A |
| Phenolics | ND | ND | mg/L | 0.005 | EPA 420.4 | 1 | 08/19/2025 13:11 | AKH | J |
| Specific Conductance | 283 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/12/2025 07:45 | MYM | A |
| Sulfate | 10.5 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/07/2025 12:18 | J1W | A |
| Total Dissolved Solids | 188 | | mg/L | 25 | SM2540C-15 | 1 | 08/08/2025 15:20 | RAG | A |
| Total Organic Carbon (TOC) | 0.52 | | mg/L | 0.50 | SM5310B-14 | 1 | 08/13/2025 00:00 | PAG | H |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 08/07/2025 10:25 | AKH | A |

## Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3429257001 | 3076 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | Subcontract | N/A | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|---|---|---|---|---|---|---|---|
| 3429257001 | 3076 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | |
| | | EPA TRMD | 1460813 | 08/15/2025 08:41 | RMH | EPA 200.7 | 1461184 |
| | | EPA ACID | 1460745 | 08/14/2025 17:00 | MSY | EPA 200.7 | 1460830 |
| | | N/A | N/A | N/A | | Subcontract | |
| | | N/A | N/A | N/A | | EPA 524.2 | 1460833 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1458941 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1459875 |
| | | SW846 9066 | 1461233 | 08/18/2025 10:49 | AKH | EPA 420.4 | 1461237 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1460044 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1459876 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1458962 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1460044 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1459883 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1459187 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1459328 |

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

# CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

3429257
Logged By: SLS
PM: SJB

of

(Receiving Lab)

**Client Name:** LCSWMA Brian Sensenich

**Address:** 3076 River Rd
Conestoga PA 17516

**Contact:** Brian Sensenich
**Phone#:** 717-676-5779
**Project Name/#:** LCSWMA Quarterly
**Bill To:** LCSWMA Biran Sensenich
**Purchase Order #:**

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

**Date Required:** **Approved?**
**Email?** [ ]

| | Container Type | AG | AN | AN | CG | | P | P | P | P | P |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Container Size | 40ml | 250ml | 125ml | 40ml | | 250ml | 125ml | 125ml | 1L | 500ml |
| | Preservative | HCL | H2SO4 | H2SO4 | ASCHCL | | H2SO4 | HNO3 | HNO3 | UNP | UNP |

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

**ANALYSIS / METHOD REQUESTED**

| | Sample Description/Location (as it will appear on the lab report) | Date Collected mm/dd/yy | Time hh:mm | SDWA Sample Type (see key) | *G or C | **Matrix (See bottom of COC) | TOC | TOX | O-OH | EPA 524.2 Form 52 | FM | NH3-N, COD | Dissolved Metals Ca,Fe,Mg,Mn, K,Na | Metals Ca,Fe,Mg,Mn,K,Na | pH,TDS,NO2,NO3,Cl,SO4,F, SpC,Tb | Alkalinity, HCO3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Enter Number of Containers Per Sample or Field Results Below. | | | | | | | | | |
| 1 | 3076RIVERRD | 8-6-25 | 1000 | | G | DW | 2 | 2 | 1 | 3 | x | 1 | 2 | 2 | 1 | 1 |
| 2 | Trip Blank | 8-6-25 | NA | | G | Di | | | | 2 | | | | | | |
| 3 | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |

Temp Taken By: Therm ID: WO Temp (°C)

*Receipt Info completed by:*_____ WV Containers 0-6°C Y N NA

| | | | |
|---|---|---|---|
| Cooler Custody Seals Intact | Y | N | NA |
| Sample Custody Seal Intact | Y | N | NA |
| Received on Ice | Y | N | NA |
| Coolers & Samples Intact | Y | N | |
| Correct Containers Provided | Y | N | |
| Sample Label/COC Agree | Y | N | |
| Adequate Sample Volumes | Y | N | |
| VOA only: Trip Blank | Y | N | NA |

NJ ≤ 4 days? Y N
Courier/Tracking #

Deviations? NO YES
If YES, llist below:

**Client contact:**
*Date/Tech:*

Sample(s) for Radiation testing? Y N Rad Screen (uCi)_____
Reportable SDWA Sample(s)? Y N New Source? Y N
SDWA State of Origin?_____ New Source Contact:
PWSID #__
PWS Contact:_____ PWS Phone #:_____

**SDWA Sample Type Key:** D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

**Sample/COC Remarks**

**Contains Short Hold Testing YES NO**

**Internal Use: If less than 48 hours - notify lab upon receipt**

**Circle Sample Collector: ALS Tech / Client**
**Name:** Evan P **ID:**

**Comments:** PH- 5.12 temp. 19.5°c Spc. 300

| Date: | Time | | Relinquished By / Company Name | | Received By / Company Name |
|---|---|---|---|---|---|
| 8-6-25 | 1640 | 1 | ALS | 2 | |
| | | 3 | | 4 | |
| | | 5 | | 6 | |
| | | 7 | | 8 | |
| | | 9 | | 10 | |

**Data Deliverables**
[ ] Standard Lvl 1 [ ] CLP-like [ ] HSCA
[ ] Standard Lvl 2 [ ] DOD [ ] Landfill
[ ] Standard Lvl 3 [ ] NJ RED [ ] NJ GW
[ ] Standard Lvl 4 [ ] NJ Full [ ] _____

**EDDs**
[ ] Excel Summary
[ ] Equis
[ ] Custom

**Sample Disposal**
Lab [x]
Special [ ]

**EDDS:** Format Type

**State Samples Collected In**
[ ] NY
[ ] NJ
[x] PA
[ ] WV
[ ] FL
[ ] other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

**ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057**

Rev 07.06.2023

# Middletown Sample Condition Form

Client LCSWMA Workorder 3429257

Temp °C 0 Therm ID 569 Ice? (Y) N N/A Initials & Date LW 8/25

Fedex UPS Client (ALS) Other Tracking # _____

| | Yes | No[1] | N/A | Comments |
|---|---|---|---|---|
| Cooler Custody Seals present & intact | | | X | |
| Sample Custody Seals present & intact | | | X | |
| Chain-of-Custody present | X | | | |
| Sample collector name present<br>*If not present, must contact PM/client to request name.* | X | | | |
| COC/bottle labels complete & in agreement | X | | | |
| •Sample location | X | | | |
| •Date and time of sample collection | X | | | |
| •Type(s) of preservation | X | | | |
| •Number of containers | X | | | |
| •Composite or grab | X | | | |
| •Matrix | X | | | |
| Proper containers, preservation, and volume per method | X | | | |
| Received within hold time | X | | | |
| Containers intact | X | | | |
| Trip blanks present (EPA 504, EPA 524) | X | | | |
| Field blanks present (Hg 1631, PFAS) | | | X | |
| NJ ≤ 4 Days | | | X | |
| CR6 Samples Filtered | | | X | |
| OP Samples Filtered | | | X | |
| WV Containers 0-6°C | | | X | |
| SDWA compliance reporting | | | X | |

[1] *If No, provide comment*

Rad Screen (uCi) _____

PM - PM to contact client
N/A - Not Applicable
UC - Updated coc with missing information

Review Comments:

_____

_____

_____

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Wednesday, August 13, 2025

Susan Scherer
ALS ENVIRONMENTAL
301 FULLING MILL ROAD
MIDDLETOWN, PA 17057

Order No.: G2508487

Dear Susan Scherer:

Geochemical Testing received 1 sample(s) on 8/8/2025 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Joelle Streczywilk
Environmental Laboratory Manager

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

## Geochemical Testing

**Date:** *13-Aug-25*

**CLIENT:** ALS ENVIRONMENTAL
**Project:**
**Lab Order:** G2508487

# CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

**Glossary:**

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative
ND - Not Detected
MCL - Contaminant Limit
J - Indicates an estimated value.
Q - Qualifier
QL -Quantitation Limit
DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

# Glossary (continued)

1 Spike recovery limits are not applicable when the sample concentration exceeds the spike concentration by a factor of four or greater.

B1 Dilution water blank exceeded method criterion.

C1 CCV recovery above the acceptance limits. Results may be biased high.

C2 CCV recovery below the acceptance limits. Results may be biased low.

C3 ICV recovery above the acceptance limits. Results may be biased high.

C4 ICV recovery below the acceptance limits. Results may be biased low.

D1 The analysis did not meet the minimum DO depletion of at least 2 mg/L.

D2 The analysis did not meet the minimum residual DO of at least 1 mg/L.

D3 Sample required dilution due to a matrix interference.

D4 Sample was diluted in the extraction steps due to marked matrix interferences.

D5 Sample required dilution due to a chloride interference.

D6 Sample was diluted and the reporting limits were raised to achieve method compliant internal standard recovery.

D7 Sample was digested at a dilution due to the formation of a post-digestion precipitate.

D8 Sample was digested at a dilution to achieve method compliant matrix spike recovery.

D9 Sample was digested at a dilution to meet method compliant digestion criteria.

E2 Unable to obtain a stable weight within specified limits due to sample matrix. Value is estimated.

F1 Fecal sample tested positive for residual chlorine.

H1 Due to under-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H2 Due to over-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H3 Sample was re-analyzed outside of hold time due to error during original analysis.

H4 The Nitrite result used to report Nitrate was analyzed past the 48-hour holding time.

I1 Internal standard recovery above method acceptance limits. Results are estimated.

I2 Internal standard recovery was below method acceptance limits. Results are estimated.

IP One of the instrument performance checks ( ) did not meet the acceptance criteria.

L1 LCS above the acceptance limits. Result may be biased high.

L2 LCS below the acceptance limits. Result may be biased low.

L3 Analyte was spiked into the LCS, but was not recovered.

M1 Matrix Spike recovery above the acceptance limits.

M2 Matrix Spike recovery below the acceptance limits.

M4 The matrix spike failed high for the surrogate.

M5 The matrix spike failed low for the surrogate.

M6 The reporting limits were raised due to sample matrix interference.

M7 Recovery for matrix spike could not be quantified due to matrix interference.

M8 Analyte was spiked into the MS, but was not recovered.

M9 Analyte concentration was determined by the method of standard addition (MSA).

N1 The lab does not hold accreditation from PA-DEP for this parameter by this method

N2 PADEP does not accredit labs for this analyte by this method.

N3 The lab is accredited for this method in West Virginia, but not in PA (its primary accrediting body).

N4 PADEP does not accredit labs for this analyte by this method in drinking water.

O1 The flashpoint tester cannot detect below 50 degrees F.

O2 Result is temperature of the sample when flame observed. No flash observed. Result qualified.

O4 Sample was received with headspace.

O5 Sample was received in incorrect container and is not compliant with 40CFR136 Table II.

O6 Insufficient sample volume was received to comply with the method.

P1 The pH of the sample was >2 and is not compliant with 40CFR136 Table II.

P2 Sample contained residual chlorine and is not compliant with 40CFR136 Table II

P3 The pH of the sample was <10 and is not compliant with 40CFR136 Table II.

P4 Field preservation does not meet EPA or method recommendations for this analysis.

P5 Acid preservation may not be appropriate for the analysis of 2-Chloroethylvinyl ether.

P6 Sample required additional preservative upon receipt.

P7 The sample was received unpreserved.

P8 The pH of the sample was < 9 and is not compliant with 40 CFR136 Table II.

Q2 Reported lower result from the dual detector. See case narrative.

Q3 Sample detected multiple Aroclors. See case narrative.

Q4 Weathering or degradation observed for PCBs. See case narrative.

Q5 Positive PCB interference qualified in peak(s) that cannot be removed. See case narrative.

Q6 Peak Height/Area used in quantification is documented in the case narrative.

R Relative Percent Difference (RPD) was above the control limit.

R1 RPD above control limits between matrix spike and MS duplicates

R2 RPD above the control limit between duplicates.

R3 RSD above the control limit between replicates.

R4 RPD above control limits between Inorganic Carbon check and spike.

R5 RPD above control limits between control sample and control sample duplicates.

R6 Dual Column/Detector RDP >40%. Higher result reported.

S2 Surrogate recovery in the blank was below the control limit.

S3 Surrogate recovery in the blank was above the control limit.

S4 Surrogate recovery in the LCS is above the control limit.

S5 Surrogate recovery in the LCS is below the control limit.

SR Analyte recovery was outside the accepted recovery limits and above the control limit for RPD.

TC The MS tune check (tailing factor) did not meet the acceptance criteria.

# Laboratory Results

## Geochemical Testing

**Date:** *13-Aug-25*

| | | | |
|---|---|---|---|
| **CLIENT:** | ALS ENVIRONMENTAL | **Client Sample ID:** | 3429257001 |
| **Lab Order:** | G2508487 | | 3076 River Road, Conestoga, PA |
| **Project:** | | **Sampled By:** | ALS |
| **Lab ID:** | G2508487-001 | **Collection Date:** | 8/6/2025 10:00:00 AM |
| **Matrix:** | AQUEOUS | **Received Date:** | 8/8/2025 12:09:42 PM |

| Analyses | Result | QL | Q | Units | DF | Date Prepared | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **INDICATOR ORGANIC PARAMETERS** | | Analyst: **ACW** | | | | **EPA 9020 B** | **EPA 9020 B** |
| Total Organic Halogen | < 50 | 50 | | µg/L | 1 | 08/11/25 5:00 AM | 08/11/25 8:16 AM |

I.D. 56-00306 PA DEP

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 |

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**

Project 3RD QTR 2025-3079 RIVER RD
Workorder 3429261
Report ID 452132 on 8/23/2025

## Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 06, 2025.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

Susan Scherer
**Susan Scherer** *(ALS Digital Signature)*
Project Coordinator

## Sample Summary

| Lab ID | Sample ID | Matrix | Date Collected | Date Received | Collector | Collection Company |
|---|---|---|---|---|---|---|
| 3429261001 | 3079RIVERRD | Water | 08/06/2025 15:10 | 08/06/2025 16:40 | EMP | ALS Environmental-Middletown |

# Reference

## Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

## Standard Acronyms/Flags

| | |
|---|---|
| J | Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte |
| U | Indicates that the analyte was Not Detected (ND) above the MDL |
| N | Indicates presumptive evidence of the presence of a compound |
| MDL | Method Detection Limit |
| PQL | Practical Quantitation Limit |
| RDL | Practical Quantitation Limit for this Project |
| ND | Not Detected - indicates that the analyte was Not Detected |
| Cntr | Analysis was performed using this container |
| RegLmt | Regulatory Limit |
| LCS | Laboratory Control Sample |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| DUP | Sample Duplicate |
| %Rec | Percent Recovery |
| RPD | Relative Percent Difference |
| LOD | DoD Limit of Detection |
| LOQ | DoD Limit of Quantitation |
| DL | DoD Detection Limit |
| I | Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL) |
| (S) | Surrogate Compound |
| NC | Not Calculated |
| * | Result outside of QC limits |
| # | Please reference the result in the Results Section for analyte-level flags. |

## Project Notations

## Sample Notations

| Lab ID | Sample ID |
|---|---|

## Result Notations

| Notation Ref. | |
|---|---|
| 1 | The Method Blank for method SM2320B-2011 reported a value greater than the reporting level for the analyte Alkalinity, Total. The concentration was 10 |
| 2 | The Method Blank for method SM2320B-2011 reported a value greater than the reporting level for the analyte Alkalinity, Total. The concentration was 13.6 |
| 3 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 4 | The QC sample type MS for method EPA 350.1 was outside the control limits for the analyte Ammonia-N, Low Level. The % Recovery was reported as 79.3 and the control limits were 80 to 120. |
| 5 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 6 | The QC sample type STD 10 for method S4500HB-11 was outside the control limits for the analyte pH. The % Recovery was reported as 99.9 and the control limits were 100 to 101. |
| 7 | See attached subcontract results for TOX from Geochemical Testing |

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | 3079RIVERRD | Collected | 08/06/2025 15:10 |
| Lab Sample ID | 3429261001 | Lab Receipt | 08/06/2025 16:40 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Dissolved Oxygen | 3.76 | mg/L | 0.01 | Field | # |
| Oxidation-Reduction Potential | 71 | mV | | Field | # |
| pH, Field (SM4500B) | 6.15 | pH_Units | | Field | # |
| Specific Conductance, Field | 175 | umhos/cm | 1 | Field | # |
| Temperature | 21.66 | Deg. C | | Field | # |
| **METALS** | | | | | |
| Calcium, Dissolved | 11.1 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 10.7 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 5.5 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 5.3 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.019 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.019 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 1.7 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 1.7 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 12.9 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 12.2 | mg/L | 0.25 | EPA 200.7 | # |
| **SUBCONTRACTED ANALYSIS** | | | | | |
| Subcontracted Analysis | See attached | | | Subcontract | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 16 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 16 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 28.2 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 2.2 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 7.24 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 174 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 7.4 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 125 | mg/L | 25 | SM2540C-15 | # |
| Turbidity | 0.30 | NTU | 0.30 | SM2130B-2011 | # |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3079RIVERRD | Collected | 08/06/2025 15:10 |
| Lab Sample ID | 3429261001 | Lab Receipt | 08/06/2025 16:40 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Oxygen | 3.76 | | mg/L | 0.01 | Field | 1 | 08/06/2025 15:10 | E2P | P |
| Oxidation-Reduction Potential | 71 | | mV | | Field | 1 | 08/06/2025 15:10 | E2P | P |
| pH, Field (SM4500B) | 6.15 | | pH_Units | | Field | 1 | 08/06/2025 15:10 | E2P | P |
| Specific Conductance, Field | 175 | | umhos/cm | 1 | Field | 1 | 08/06/2025 15:10 | E2P | P |
| Temperature | 21.66 | | Deg. C | | Field | 1 | 08/06/2025 15:10 | E2P | P |

## METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Calcium, Dissolved | 11.1 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/14/2025 19:01 | MSY | F |
| Calcium, Total | 10.7 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/18/2025 13:06 | MSY | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/14/2025 19:01 | MSY | F |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/18/2025 13:06 | MSY | D1 |
| Magnesium, Dissolved | 5.5 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/14/2025 19:01 | MSY | F |
| Magnesium, Total | 5.3 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/18/2025 13:06 | MSY | D1 |
| Manganese, Dissolved | 0.019 | | mg/L | 0.0050 | EPA 200.7 | 1 | 08/14/2025 19:01 | MSY | F |
| Manganese, Total | 0.019 | | mg/L | 0.0025 | EPA 200.7 | 1 | 08/18/2025 13:06 | MSY | D1 |
| Potassium, Dissolved | 1.7 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/14/2025 19:01 | MSY | F |
| Potassium, Total | 1.7 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/18/2025 13:06 | MSY | D1 |
| Sodium, Dissolved | 12.9 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/14/2025 19:01 | MSY | F |
| Sodium, Total | 12.2 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/18/2025 13:06 | MSY | D1 |

## SUBCONTRACTED ANALYSIS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Subcontracted Analysis | See attached | 7 | | | Subcontract | 1 | 08/13/2025 16:46 | SUB | K |

## VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 16:40 | TMP | M |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 16:40 | TMP | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 16:40 | TMP | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 16:40 | TMP | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 16:40 | TMP | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 16:40 | TMP | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 16:40 | TMP | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 16:40 | TMP | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 16:40 | TMP | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 16:40 | TMP | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 16:40 | TMP | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 16:40 | TMP | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 16:40 | TMP | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 16:40 | TMP | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 16:40 | TMP | M |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3079RIVERRD | Collected | 08/06/2025 15:10 |
| Lab Sample ID | 3429261001 | Lab Receipt | 08/06/2025 16:40 |

## VOLATILE ORGANICS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 16:40 | TMP | M |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 87.9% | 70 – 130 | 08/15/2025 16:40 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 16 | | mg/L | 5 | SM2320B-2011 | 1 | 08/14/2025 08:14 | JXK | A |
| Alkalinity, Total | 16 | 1,2,3 | mg/L | 5 | SM2320B-2011 | 1 | 08/14/2025 08:14 | JXK | A |
| Ammonia-N, Low Level | ND | ND,4 | mg/L | 0.10 | SM 4500-NH3G | 1 | 08/11/2025 15:03 | AYS | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/11/2025 10:55 | KMS | C |
| Chloride | 28.2 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/07/2025 12:57 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/07/2025 12:57 | J1W | A |
| Nitrate-N | 2.2 | | mg/L | 1.0 | EPA 300.0 | 2 | 08/07/2025 12:57 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/07/2025 12:57 | J1W | A |
| pH | 7.24 | 5,6 | pH_Units | | S4500HB-11 | 1 | 08/14/2025 08:14 | JXK | A |
| Phenolics | ND | ND | mg/L | 0.005 | EPA 420.4 | 1 | 08/19/2025 12:18 | AKH | J |
| Specific Conductance | 174 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/12/2025 07:45 | MYM | A |
| Sulfate | 7.4 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/07/2025 12:57 | J1W | A |
| Total Dissolved Solids | 125 | | mg/L | 25 | SM2540C-15 | 1 | 08/08/2025 15:20 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-14 | 1 | 08/13/2025 00:00 | PAG | H |
| Turbidity | 0.30 | | NTU | 0.30 | SM2130B-2011 | 1 | 08/07/2025 10:25 | AKH | A |

## Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3429261001 | 3079RIVERRD | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | Subcontract | N/A | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|---|---|---|---|---|---|---|---|
| 3429261001 | 3079RIVERRD | N/A | N/A | N/A | | Field | |
| | | EPA TRMD | 1460813 | 08/15/2025 08:41 | RMH | EPA 200.7 | 1461184 |
| | | EPA ACID | 1460745 | 08/14/2025 17:00 | MSY | EPA 200.7 | 1460830 |
| | | N/A | N/A | N/A | | Subcontract | |
| | | N/A | N/A | N/A | | EPA 524.2 | 1460833 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1458941 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1459875 |
| | | SW846 9066 | 1461233 | 08/18/2025 10:49 | AKH | EPA 420.4 | 1461237 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1460044 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1459876 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1458962 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1460044 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1459883 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1459187 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1459328 |

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

# CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

3429261
Logged By: SLS
PM: SJB

/ of

**Client Name:** Lancaster County Solid Waste MA

**Address:** 1299 Harrisburg Pike
Lancaster Pa 17604

**Contact:** Dan Brown
**Phone#:** 717-553-5864
**Project Name/#:** LCSWMA Quarterly
**Bill To:** LCSWMA
**Purchase Order #:**

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? [ ]

| | Container Type | AG | AN | AN | CG | | P | P | P | P | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Container Size | 40ml | 250ml | 125ml | 40ml | | 250ml | 125ml | 125ml | 1L | 500ml |
| | Preservative | HCL | H2SO4 | H2SO4 | ASCHCL | | H2SO4 | HNO3 | HNO3 | UNP | UNP |

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

ANALYSIS / METHOD REQUESTED

| | Sample Description/Location (as it will appear on the lab report) | Date Collected mm/dd/yy | Time hh:mm | SDWA Sample Type (see key) | *G or C | **Matrix (See bottom of COC) | TOC | TOX | O-OH | EPA 524.2 Form 52 | FM | NH3-N, COD | Dissolved Metals Ca,Fe,Mg,Mn, K,Na | Metals Ca,Fe,Mg,Mn,K,Na | pH,TDS,NO2,NO3,Cl,SO4,F, SpC,Tb | Alkalinity, HCO3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Enter Number of Containers Per Sample or Field Results Below. | | | | | | | | | |
| 1 | 3079RIVERRD | 8-6-25 | 1510 | | G | DW | 2 | 2 | 1 | 3 | x | 1 | 2 | 2 | 1 | 1 |
| 2 | Trip Blank | 8-6-25 | NA | | G | Di | | | | 2 | | | | | | |
| 3 | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |

Circle Sample Collector: ALS Tech / Client
Name: Evan P ID:

Comments: PH-6.15 temp. 21.66° Spc. 175, DO-3.76 ORP-70.56

| Date: | Time | | Relinquished By / Company Name | | Received By / Company Name |
|---|---|---|---|---|---|
| 8-6-25 | 1640 | 1 | ALS | 2 | |
| | | 3 | | 4 | |
| | | 5 | | 6 | |
| | | 7 | | 8 | |
| | | 9 | | 10 | |

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

I by Receiving Lab)
WO Temp (°C)

Receipt Info completed by:_____ WV Containers 0-6°C Y N NA

| | | | |
|---|---|---|---|
| Cooler Custody Seals Intact | Y | N | NA |
| Sample Custody Seal Intact | Y | N | NA |
| Received on Ice | Y | N | NA |
| Coolers & Samples Intact | Y | N | |
| Correct Containers Provided | Y | N | |
| Sample Label/COC Agree | Y | N | |
| Adequate Sample Volumes | Y | N | |
| VOA only: Trip Blank | Y | N | NA |

NJ ≤ 4 days? Y N
Courier/Tracking #

Deviations? NO YES
If YES, list below:

Client contact:
Date/Tech:

Sample(s) for Radiation testing? Y N
Reportable SDWA Sample(s)? Y N
SDWA State of Origin?_____
PWSID #__

Rad Screen (uCi)_____
New Source? Y N
New Source Contact:

PWS Contact:_____ PWS Phone #:_____

**SDWA Sample Type Key:** D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

**Sample/COC Remarks**

**Contains Short Hold Testing YES NO**

Internal Use: If less than 48 hours - notify lab upon receipt

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ]

EDDs: [ ] Excel Summary [ ] Equis [ ] Custom

Sample Disposal: Lab [x] Special [ ]

EDDS: Format Type

State Samples Collected In: [ ] NY [ ] NJ [x] PA [ ] WV [ ] FL [ ] other

# Middletown Sample Condition Form

Client LCSWMA Workorder 3429261

Temp °C 1 Therm ID S69 Ice? (Y) N N/A Initials & Date LW 8/25

Fedex UPS Client (ALS) Other Tracking # _____

| | Yes | No[1] | N/A | Comments |
|---|---|---|---|---|
| Cooler Custody Seals present & intact | | | X | |
| Sample Custody Seals present & intact | | | X | |
| Chain-of-Custody present | X | | | |
| Sample collector name present<br>*If not present, must contact PM/client to request name.* | X | | | |
| COC/bottle labels complete & in agreement | X | | | |
| •Sample location | X | | | |
| •Date and time of sample collection | X | | | |
| •Type(s) of preservation | X | | | |
| •Number of containers | X | | | |
| •Composite or grab | X | | | |
| •Matrix | X | | | |
| Proper containers, preservation, and volume per method | X | | | |
| Received within hold time | X | | | |
| Containers intact | X | | | |
| Trip blanks present (EPA 504, EPA 524) | X | | | |
| Field blanks present (Hg 1631, PFAS) | | | X | |
| NJ ≤ 4 Days | | | X | |
| CR6 Samples Filtered | | | X | |
| OP Samples Filtered | | | X | |
| WV Containers 0-6°C | | | X | |
| SDWA compliance reporting | | | X | |

[1] *If No, provide comment*

Rad Screen (uCi) _____

PM - PM to contact client
N/A - Not Applicable
UC - Updated coc with missing information

Review Comments:

_____

_____

_____

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Wednesday, August 13, 2025

Susan Scherer
ALS ENVIRONMENTAL
301 FULLING MILL ROAD
MIDDLETOWN, PA 17057

Order No.: G2508491

Dear Susan Scherer:

Geochemical Testing received 1 sample(s) on 8/8/2025 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Joelle Streczywilk
Environmental Laboratory Manager

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

## Geochemical Testing

**Date:** *13-Aug-25*

**CLIENT:** ALS ENVIRONMENTAL
**Project:**
**Lab Order:** G2508491

# CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

**Glossary:**

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative
ND - Not Detected
MCL - Contaminant Limit
J - Indicates an estimated value.
Q - Qualifier
QL -Quantitation Limit
DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

# Glossary (continued)

1 Spike recovery limits are not applicable when the sample concentration exceeds the spike concentration by a factor of four or greater.

B1 Dilution water blank exceeded method criterion.

C1 CCV recovery above the acceptance limits. Results may be biased high.

C2 CCV recovery below the acceptance limits. Results may be biased low.

C3 ICV recovery above the acceptance limits. Results may be biased high.

C4 ICV recovery below the acceptance limits. Results may be biased low.

D1 The analysis did not meet the minimum DO depletion of at least 2 mg/L.

D2 The analysis did not meet the minimum residual DO of at least 1 mg/L.

D3 Sample required dilution due to a matrix interference.

D4 Sample was diluted in the extraction steps due to marked matrix interferences.

D5 Sample required dilution due to a chloride interference.

D6 Sample was diluted and the reporting limits were raised to achieve method compliant internal standard recovery.

D7 Sample was digested at a dilution due to the formation of a post-digestion precipitate.

D8 Sample was digested at a dilution to achieve method compliant matrix spike recovery.

D9 Sample was digested at a dilution to meet method compliant digestion criteria.

E2 Unable to obtain a stable weight within specified limits due to sample matrix. Value is estimated.

F1 Fecal sample tested positive for residual chlorine.

H1 Due to under-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H2 Due to over-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H3 Sample was re-analyzed outside of hold time due to error during original analysis.

H4 The Nitrite result used to report Nitrate was analyzed past the 48-hour holding time.

I1 Internal standard recovery above method acceptance limits. Results are estimated.

I2 Internal standard recovery was below method acceptance limits. Results are estimated.

IP One of the instrument performance checks ( ) did not meet the acceptance criteria.

L1 LCS above the acceptance limits. Result may be biased high.

L2 LCS below the acceptance limits. Result may be biased low.

L3 Analyte was spiked into the LCS, but was not recovered.

M1 Matrix Spike recovery above the acceptance limits.

M2 Matrix Spike recovery below the acceptance limits.

M4 The matrix spike failed high for the surrogate.

M5 The matrix spike failed low for the surrogate.

M6 The reporting limits were raised due to sample matrix interference.

M7 Recovery for matrix spike could not be quantified due to matrix interference.

M8 Analyte was spiked into the MS, but was not recovered.

M9 Analyte concentration was determined by the method of standard addition (MSA).

N1 The lab does not hold accreditation from PA-DEP for this parameter by this method

N2 PADEP does not accredit labs for this analyte by this method.

N3 The lab is accredited for this method in West Virginia, but not in PA (its primary accrediting body).

N4 PADEP does not accredit labs for this analyte by this method in drinking water.

O1 The flashpoint tester cannot detect below 50 degrees F.

O2 Result is temperature of the sample when flame observed. No flash observed. Result qualified.

O4 Sample was received with headspace.

O5 Sample was received in incorrect container and is not compliant with 40CFR136 Table II.

O6 Insufficient sample volume was received to comply with the method.

P1 The pH of the sample was >2 and is not compliant with 40CFR136 Table II.

P2 Sample contained residual chlorine and is not compliant with 40CFR136 Table II

P3 The pH of the sample was <10 and is not compliant with 40CFR136 Table II.

P4 Field preservation does not meet EPA or method recommendations for this analysis.

P5 Acid preservation may not be appropriate for the analysis of 2-Chloroethylvinyl ether.

P6 Sample required additional preservative upon receipt.

P7 The sample was received unpreserved.

P8 The pH of the sample was < 9 and is not compliant with 40 CFR136 Table II.

Q2 Reported lower result from the dual detector. See case narrative.

Q3 Sample detected multiple Aroclors. See case narrative.

Q4 Weathering or degradation observed for PCBs. See case narrative.

Q5 Positive PCB interference qualified in peak(s) that cannot be removed. See case narrative.

Q6 Peak Height/Area used in quantification is documented in the case narrative.

R Relative Percent Difference (RPD) was above the control limit.

R1 RPD above control limits between matrix spike and MS duplicates

R2 RPD above the control limit between duplicates.

R3 RSD above the control limit between replicates.

R4 RPD above control limits between Inorganic Carbon check and spike.

R5 RPD above control limits between control sample and control sample duplicates.

R6 Dual Column/Detector RDP >40%. Higher result reported.

S2 Surrogate recovery in the blank was below the control limit.

S3 Surrogate recovery in the blank was above the control limit.

S4 Surrogate recovery in the LCS is above the control limit.

S5 Surrogate recovery in the LCS is below the control limit.

SR Analyte recovery was outside the accepted recovery limits and above the control limit for RPD.

TC The MS tune check (tailing factor) did not meet the acceptance criteria.

# Laboratory Results

## Geochemical Testing

**Date:** *13-Aug-25*

| | | | |
|---|---|---|---|
| **CLIENT:** | ALS ENVIRONMENTAL | **Client Sample ID:** | 3429261001 |
| **Lab Order:** | G2508491 | | 3076 River Road, Conestoga, PA |
| **Project:** | | **Sampled By:** | ALS |
| **Lab ID:** | G2508491-001 | **Collection Date:** | 8/6/2025 3:10:00 PM |
| **Matrix:** | AQUEOUS | **Received Date:** | 8/8/2025 12:25:13 PM |

| Analyses | Result | QL | Q | Units | DF | Date Prepared | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **INDICATOR ORGANIC PARAMETERS** | | Analyst: **ACW** | | | | **EPA 9020 B** | **EPA 9020 B** |
| Total Organic Halogen | 243 | 50 | | µg/L | 1 | 08/11/25 5:00 AM | 08/11/25 11:03 AM |

I.D. 56-00306 PA DEP

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 |

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**

Project 3RD QTR 2025-3088 RIVER RD
Workorder 3428880
Report ID 452126 on 8/23/2025

## Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 05, 2025.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

Susan Scherer

**Susan Scherer** *(ALS Digital Signature)*
Project Coordinator

## Sample Summary

| Lab ID | Sample ID | Matrix | Date Collected | Date Received | Collector | Collection Company |
|---|---|---|---|---|---|---|
| 3428880001 | 3088 River Road, Conestoga PA | Water | 08/05/2025 10:20 | 08/05/2025 15:55 | EMP | ALS Environmental-Middletown |

# Reference

## Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

## Standard Acronyms/Flags

| | |
|---|---|
| J | Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte |
| U | Indicates that the analyte was Not Detected (ND) above the MDL |
| N | Indicates presumptive evidence of the presence of a compound |
| MDL | Method Detection Limit |
| PQL | Practical Quantitation Limit |
| RDL | Practical Quantitation Limit for this Project |
| ND | Not Detected - indicates that the analyte was Not Detected |
| Cntr | Analysis was performed using this container |
| RegLmt | Regulatory Limit |
| LCS | Laboratory Control Sample |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| DUP | Sample Duplicate |
| %Rec | Percent Recovery |
| RPD | Relative Percent Difference |
| LOD | DoD Limit of Detection |
| LOQ | DoD Limit of Quantitation |
| DL | DoD Detection Limit |
| I | Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL) |
| (S) | Surrogate Compound |
| NC | Not Calculated |
| * | Result outside of QC limits |
| # | Please reference the result in the Results Section for analyte-level flags. |

## Project Notations

## Sample Notations

| Lab ID | Sample ID |
|---|---|

## Result Notations

| Notation Ref. | |
|---|---|
| 1 | The Method Blank for method SM2320B-2011 reported a value greater than the reporting level for the analyte Alkalinity, Total. The concentration was 10 |
| 2 | The Method Blank for method SM2320B-2011 reported a value greater than the reporting level for the analyte Alkalinity, Total. The concentration was 13.6 |
| 3 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 4 | The QC sample type STD 10 for method S4500HB-11 was outside the control limits for the analyte pH. The % Recovery was reported as 99.9 and the control limits were 100 to 101. |
| 5 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 6 | The QC sample type MSD for method SW846 9066 was outside the control limits for the analyte Phenolics. The % Recovery was reported as 124 and the control limits were 90 to 110. |
| 7 | The QC sample type MS for method SW846 9066 was outside the control limits for the analyte Phenolics. The % Recovery was reported as 121 and the control limits were 90 to 110. |
| 8 | The QC sample type MS for method 415.1/9060/5310B was outside the control limits for the analyte Total Organic Carbon (TOC). The % Recovery was reported as 125 and the control limits were 85 to 115. |
| 9 | See attached subcontract results for TOX from Geochemical Testing |

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | 3088 River Road, Conestoga PA | Collected | 08/05/2025 10:20 |
| Lab Sample ID | 3428880001 | Lab Receipt | 08/05/2025 15:55 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| pH, Field (SM4500B) | 6.84 | pH_Units | | Field | # |
| Specific Conductance, Field | 1350 | umhos/cm | 1 | Field | # |
| Temperature | 22.90 | Deg. C | | Field | # |
| **METALS** | | | | | |
| Calcium, Dissolved | 0.23 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 0.22 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 0.12 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 0.11 | mg/L | 0.050 | EPA 200.7 | # |
| Potassium, Dissolved | 3.3 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 3.2 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 283 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 242 | mg/L | 0.25 | EPA 200.7 | # |
| **SUBCONTRACTED ANALYSIS** | | | | | |
| Subcontracted Analysis | See attached | | | Subcontract | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 173 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 199 | mg/L | 5 | SM2320B-2011 | # |
| Chemical Oxygen Demand (COD) | 68 | mg/L | 15 | EPA 410.4 | # |
| Chloride | 279 | mg/L | 5.0 | EPA 300.0 | # |
| Nitrate-N | 8.1 | mg/L | 2.5 | EPA 300.0 | # |
| pH | 8.37 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 1350 | umhos/cm | 5 | SM2510B-2011 | # |
| Total Dissolved Solids | 726 | mg/L | 25 | SM2540C-15 | # |
| Turbidity | 0.30 | NTU | 0.30 | SM2130B-2011 | # |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3088 River Road, Conestoga PA | Collected | 08/05/2025 10:20 |
| Lab Sample ID | 3428880001 | Lab Receipt | 08/05/2025 15:55 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| pH, Field (SM4500B) | 6.84 | | pH_Units | | Field | 1 | 08/05/2025 10:20 | E2P | P |
| Specific Conductance, Field | 1350 | | umhos/cm | 1 | Field | 1 | 08/05/2025 10:20 | E2P | P |
| Temperature | 22.90 | | Deg. C | | Field | 1 | 08/05/2025 10:20 | E2P | P |

## METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Calcium, Dissolved | 0.23 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/14/2025 18:48 | MSY | F |
| Calcium, Total | 0.22 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/18/2025 11:55 | MSY | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/14/2025 18:48 | MSY | F |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/18/2025 11:55 | MSY | D1 |
| Magnesium, Dissolved | 0.12 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/14/2025 18:48 | MSY | F |
| Magnesium, Total | 0.11 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/18/2025 11:55 | MSY | D1 |
| Manganese, Dissolved | ND | ND | mg/L | 0.0050 | EPA 200.7 | 1 | 08/14/2025 18:48 | MSY | F |
| Manganese, Total | ND | ND | mg/L | 0.0025 | EPA 200.7 | 1 | 08/18/2025 11:55 | MSY | D1 |
| Potassium, Dissolved | 3.3 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/14/2025 18:48 | MSY | F |
| Potassium, Total | 3.2 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/18/2025 11:55 | MSY | D1 |
| Sodium, Dissolved | 283 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/14/2025 18:48 | MSY | F |
| Sodium, Total | 242 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/18/2025 11:55 | MSY | D1 |

## SUBCONTRACTED ANALYSIS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Subcontracted Analysis | See attached | 9 | | | Subcontract | 1 | 08/13/2025 16:32 | SUB | K |

## VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 13:37 | TMP | M |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 13:37 | TMP | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 13:37 | TMP | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 13:37 | TMP | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 13:37 | TMP | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 13:37 | TMP | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 13:37 | TMP | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 13:37 | TMP | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 13:37 | TMP | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 13:37 | TMP | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 13:37 | TMP | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 13:37 | TMP | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 13:37 | TMP | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 13:37 | TMP | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 13:37 | TMP | M |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 13:37 | TMP | M |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3088 River Road, Conestoga PA | Collected | 08/05/2025 10:20 |
| Lab Sample ID | 3428880001 | Lab Receipt | 08/05/2025 15:55 |

## VOLATILE ORGANICS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 89.1% | 70 – 130 | 08/14/2025 13:37 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 173 | | mg/L | 5 | SM2320B-2011 | 1 | 08/13/2025 21:44 | JXK | A |
| Alkalinity, Total | 199 | 1,2,3 | mg/L | 5 | SM2320B-2011 | 1 | 08/13/2025 21:44 | JXK | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 08/11/2025 19:34 | AYS | C |
| Chemical Oxygen Demand (COD) | 68 | | mg/L | 15 | EPA 410.4 | 1 | 08/08/2025 11:45 | KMS | C |
| Chloride | 279 | | mg/L | 5.0 | EPA 300.0 | 5 | 08/06/2025 12:47 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.50 | EPA 300.0 | 5 | 08/06/2025 12:47 | J1W | A |
| Nitrate-N | 8.1 | | mg/L | 2.5 | EPA 300.0 | 5 | 08/06/2025 12:47 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 2.5 | EPA 300.0 | 5 | 08/06/2025 12:47 | J1W | A |
| pH | 8.37 | 4,5 | pH_Units | | S4500HB-11 | 1 | 08/13/2025 21:44 | JXK | A |
| Phenolics | ND | ND,6,7 | mg/L | 0.005 | EPA 420.4 | 1 | 08/08/2025 13:57 | ZEB | J |
| Specific Conductance | 1350 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/12/2025 07:45 | MYM | A |
| Sulfate | ND | ND | mg/L | 5.0 | EPA 300.0 | 5 | 08/06/2025 12:47 | J1W | A |
| Total Dissolved Solids | 726 | | mg/L | 25 | SM2540C-15 | 1 | 08/07/2025 16:25 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND,8 | mg/L | 0.50 | SM5310B-14 | 1 | 08/07/2025 23:58 | PAG | H |
| Turbidity | 0.30 | | NTU | 0.30 | SM2130B-2011 | 1 | 08/06/2025 11:40 | AKH | A |

## Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3428880001 | 3088 River Road, Conestoga PA | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | Subcontract | N/A | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|---|---|---|---|---|---|---|---|
| 3428880001 | 3088 River Road, Conestoga PA | N/A | N/A | N/A | | Field | |
| | | EPA TRMD | 1460723 | 08/14/2025 15:17 | RMH | EPA 200.7 | 1461183 |
| | | EPA ACID | 1460745 | 08/14/2025 17:00 | MSY | EPA 200.7 | 1460830 |
| | | N/A | N/A | N/A | | Subcontract | |
| | | N/A | N/A | N/A | | EPA 524.2 | 1460612 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1458745 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1459188 |
| | | SW846 9066 | 1459008 | 08/07/2025 10:48 | ZEB | EPA 420.4 | 1459016 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1460044 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1459884 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1458823 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1460044 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1459883 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1458980 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1459103 |

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

# CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

3428880
Logged By: SLS
PM: SJB

of

Client Name: LCSWMA Hans Weber and Deb Kalbach

Address: 3088 River Rd
Conestoga Pa 17516

Contact: Hans Weber and Deb Kalbach
Phone#: 717-419-7982
Project Name/#: LCSWMA Quarterly
Bill To: LCSWMA Hans Weber and Deb Kalbach
Purchase Order #:

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? [ ]

| | Container Type | AG | AN | AN | CG | | P | P | P | P | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Container Size | 40ml | 250ml | 125ml | 40ml | | 250ml | 125ml | 125ml | 1L | 500ml |
| | Preservative | HCL | H2SO4 | H2SO4 | ASCHCL | | H2SO4 | HNO3 | HNO3 | UNP | UNP |

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

ANALYSIS / METHOD REQUESTED

Enter Number of Containers Per Sample or Field Results Below.

| | Sample Description/Location (as it will appear on the lab report) | Date Collected mm/dd/yy | Time hh:mm | SDWA Sample Type (see key) | *G or C | **Matrix (See bottom of COC) | TOC | TOX | O-OH | EPA 524.2 Form 52 | FM | NH3-N, COD | Dissolved Metals Ca,Fe,Mg,Mn, K,Na | Metals Ca,Fe,Mg,Mn,K,Na | pH, TDS,NO2,NO3,Cl,SO4,F, SpC,Tb | Alkalinity, HCO3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3088RIVERRD | 8.5.25 | 1020 | | G | DW | 2 | 2 | 1 | 3 | x | 1 | 2 | 2 | 1 | 1 |
| 2 | Trip Blank | 8.5.25 | NA | | G | Di | | | | 2 | | | | | | |
| 3 | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |

Circle Sample Collector: ALS Tech / Client
Name: Evon P ID:

Comments: PH-6.84 temp. 22.9°c Spc-1350

| Date: | Time | | Relinquished By / Company Name | | Received By / Company Name |
|---|---|---|---|---|---|
| 8.5.25 | 1555 | 1 | AS | 2 | Waters |
| | | 3 | | 4 | |
| | | 5 | | 6 | |
| | | 7 | | 8 | |
| | | 9 | | 10 | |

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

(Temp to be completed by Receiving Lab)
WO Temp (°C) 2°

Receipt Info completed by:
WV Containers 0-6°C Y N NA

| | | | |
|---|---|---|---|
| Cooler Custody Seals Intact | Y | N | NA |
| Sample Custody Seal Intact | Y | N | NA |
| Received on Ice | Y | N | NA |
| Coolers & Samples Intact | Y | N | |
| Correct Containers Provided | Y | N | |
| Sample Label/COC Agree | Y | N | |
| Adequate Sample Volumes | Y | N | |
| VOA only: Trip Blank | Y | N | NA |

NJ ≤ 4 days? Y N
Courier/Tracking #

Deviations? NO YES
If YES, list below:

Client contact:
Date/Tech

Sample(s) for Radiation testing? Y N
Reportable SDWA Sample(s)? Y N
SDWA State of Origin?
PWSID #
PWS Contact: PWS Phone #:

Rad Screen (uCi)
New Source? Y N
New Source Contact:

SDWA Sample Type Key: D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

Contains Short Hold Testing YES NO
Internal Use: If less than 48 hours - notify lab upon receipt

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ]

EDDs: [ ] Excel Summary [ ] Equis [ ] Custom
EDDS: Format Type

Sample Disposal: Lab [x] Special [ ]

State Samples Collected In: [ ] NY [ ] NJ [x] PA [ ] WV [ ] FL [ ] other

# Middletown Sample Condition Form

Client LCSWMA Workorder 34288SO

Temp °C 2° Therm ID 049 Ice? (Y) N N/A Initials & Date DB 8/5/25

Fedex UPS Client (ALS) Other Tracking # _____

| | Yes | No[1] | N/A | Comments |
|---|---|---|---|---|
| Cooler Custody Seals present & intact | | | ✓ | |
| Sample Custody Seals present & intact | | | ✓ | |
| Chain-of-Custody present | ✓ | | | |
| Sample collector name present *If not present, must contact PM/client to request name.* | ✓ | | | |
| COC/bottle labels complete & in agreement | ✓ | | | |
| •Sample location | ✓ | | | |
| •Date and time of sample collection | ✓ | | | |
| •Type(s) of preservation | ✓ | | | |
| •Number of containers | ✓ | | | |
| •Composite or grab | ✓ | | | |
| •Matrix | ✓ | | | |
| Proper containers, preservation, and volume per method | ✓ | | | |
| Received within hold time | ✓ | | | |
| Containers intact | ✓ | | | |
| Trip blanks present (EPA 504, EPA 524) | | | ✓ | |
| Field blanks present (Hg 1631, PFAS) | | | ✓ | |
| NJ ≤ 4 Days | | | ✓ | |
| CR6 Samples Filtered | | | ✓ | |
| OP Samples Filtered | | | ✓ | |
| WV Containers 0-6°C | | | ✓ | |
| SDWA compliance reporting | | | ✓ | |

[1] *If No, provide comment*

Rad Screen (uCi) _____

PM - PM to contact client
N/A - Not Applicable
UC - Updated coc with missing information

Review Comments:

_____

_____

_____



8/23/2025 8:22 PM

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Wednesday, August 13, 2025

Susan Scherer
ALS ENVIRONMENTAL
301 FULLING MILL ROAD
MIDDLETOWN, PA 17057

Order No.: G2508401

Dear Susan Scherer:

Geochemical Testing received 1 sample(s) on 8/7/2025 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Joelle Streczywilk
Environmental Laboratory Manager

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

## Geochemical Testing

**Date:** *13-Aug-25*

**CLIENT:** ALS ENVIRONMENTAL
**Project:**
**Lab Order:** G2508401

# CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

**Glossary:**

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative
ND - Not Detected
MCL - Contaminant Limit
J - Indicates an estimated value.
Q - Qualifier
QL -Quantitation Limit
DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

# Glossary (continued)

1 Spike recovery limits are not applicable when the sample concentration exceeds the spike concentration by a factor of four or greater.

B1 Dilution water blank exceeded method criterion.

C1 CCV recovery above the acceptance limits. Results may be biased high.

C2 CCV recovery below the acceptance limits. Results may be biased low.

C3 ICV recovery above the acceptance limits. Results may be biased high.

C4 ICV recovery below the acceptance limits. Results may be biased low.

D1 The analysis did not meet the minimum DO depletion of at least 2 mg/L.

D2 The analysis did not meet the minimum residual DO of at least 1 mg/L.

D3 Sample required dilution due to a matrix interference.

D4 Sample was diluted in the extraction steps due to marked matrix interferences.

D5 Sample required dilution due to a chloride interference.

D6 Sample was diluted and the reporting limits were raised to achieve method compliant internal standard recovery.

D7 Sample was digested at a dilution due to the formation of a post-digestion precipitate.

D8 Sample was digested at a dilution to achieve method compliant matrix spike recovery.

D9 Sample was digested at a dilution to meet method compliant digestion criteria.

E2 Unable to obtain a stable weight within specified limits due to sample matrix. Value is estimated.

F1 Fecal sample tested positive for residual chlorine.

H1 Due to under-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H2 Due to over-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H3 Sample was re-analyzed outside of hold time due to error during original analysis.

H4 The Nitrite result used to report Nitrate was analyzed past the 48-hour holding time.

I1 Internal standard recovery above method acceptance limits. Results are estimated.

I2 Internal standard recovery was below method acceptance limits. Results are estimated.

IP One of the instrument performance checks ( ) did not meet the acceptance criteria.

L1 LCS above the acceptance limits. Result may be biased high.

L2 LCS below the acceptance limits. Result may be biased low.

L3 Analyte was spiked into the LCS, but was not recovered.

M1 Matrix Spike recovery above the acceptance limits.

M2 Matrix Spike recovery below the acceptance limits.

M4 The matrix spike failed high for the surrogate.

M5 The matrix spike failed low for the surrogate.

M6 The reporting limits were raised due to sample matrix interference.

M7 Recovery for matrix spike could not be quantified due to matrix interference.

M8 Analyte was spiked into the MS, but was not recovered.

M9 Analyte concentration was determined by the method of standard addition (MSA).

N1 The lab does not hold accreditation from PA-DEP for this parameter by this method

N2 PADEP does not accredit labs for this analyte by this method.

N3 The lab is accredited for this method in West Virginia, but not in PA (its primary accrediting body).

N4 PADEP does not accredit labs for this analyte by this method in drinking water.

O1 The flashpoint tester cannot detect below 50 degrees F.

O2 Result is temperature of the sample when flame observed. No flash observed. Result qualified.

O4 Sample was received with headspace.

O5 Sample was received in incorrect container and is not compliant with 40CFR136 Table II.

O6 Insufficient sample volume was received to comply with the method.

P1 The pH of the sample was >2 and is not compliant with 40CFR136 Table II.

P2 Sample contained residual chlorine and is not compliant with 40CFR136 Table II

P3 The pH of the sample was <10 and is not compliant with 40CFR136 Table II.

P4 Field preservation does not meet EPA or method recommendations for this analysis.

P5 Acid preservation may not be appropriate for the analysis of 2-Chloroethylvinyl ether.

P6 Sample required additional preservative upon receipt.

P7 The sample was received unpreserved.

P8 The pH of the sample was < 9 and is not compliant with 40 CFR136 Table II.

Q2 Reported lower result from the dual detector. See case narrative.

Q3 Sample detected multiple Aroclors. See case narrative.

Q4 Weathering or degradation observed for PCBs. See case narrative.

Q5 Positive PCB interference qualified in peak(s) that cannot be removed. See case narrative.

Q6 Peak Height/Area used in quantification is documented in the case narrative.

R Relative Percent Difference (RPD) was above the control limit.

R1 RPD above control limits between matrix spike and MS duplicates

R2 RPD above the control limit between duplicates.

R3 RSD above the control limit between replicates.

R4 RPD above control limits between Inorganic Carbon check and spike.

R5 RPD above control limits between control sample and control sample duplicates.

R6 Dual Column/Detector RDP >40%. Higher result reported.

S2 Surrogate recovery in the blank was below the control limit.

S3 Surrogate recovery in the blank was above the control limit.

S4 Surrogate recovery in the LCS is above the control limit.

S5 Surrogate recovery in the LCS is below the control limit.

SR Analyte recovery was outside the accepted recovery limits and above the control limit for RPD.

TC The MS tune check (tailing factor) did not meet the acceptance criteria.

# Laboratory Results

## Geochemical Testing

**Date:** *13-Aug-25*

| | | | |
|---|---|---|---|
| **CLIENT:** | ALS ENVIRONMENTAL | **Client Sample ID:** | 3428880001 |
| **Lab Order:** | G2508401 | | 3088 River Road, Conestoga, PA |
| **Project:** | | **Sampled By:** | ALS |
| **Lab ID:** | G2508401-001 | **Collection Date:** | 8/5/2025 10:20:00 AM |
| **Matrix:** | AQUEOUS | **Received Date:** | 8/7/2025 2:10:47 PM |

| Analyses | Result | QL | Q | Units | DF | Date Prepared | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **INDICATOR ORGANIC PARAMETERS** | | Analyst: **ACW** | | | | **EPA 9020 B** | **EPA 9020 B** |
| Total Organic Halogen | 188 | 50 | | µg/L | 1 | 08/11/25 5:00 AM | 08/11/25 8:17 AM |

I.D. 56-00306 PA DEP

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 |

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**

Project 3RD QTR-2025 3100 RIVER RD
Workorder 3428878
Report ID 452139 on 8/23/2025

# Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 05, 2025.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

*Susan Scherer*

**Susan Scherer** *(ALS Digital Signature)*
Project Coordinator

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

## Sample Summary

| Lab ID | Sample ID | Matrix | Date Collected | Date Received | Collector | Collection Company |
|---|---|---|---|---|---|---|
| 3428878001 | 3100 River Road, Conestoga, PA | Water | 08/05/2025 09:45 | 08/05/2025 15:55 | EMP | ALS Environmental-Middletown |
| 3428878002 | Trip Blank | Water | 08/05/2025 09:45 | 08/05/2025 15:55 | EMP | ALS Environmental-Middletown |

# Reference

## Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

## Standard Acronyms/Flags

| | |
|---|---|
| J | Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte |
| U | Indicates that the analyte was Not Detected (ND) above the MDL |
| N | Indicates presumptive evidence of the presence of a compound |
| MDL | Method Detection Limit |
| PQL | Practical Quantitation Limit |
| RDL | Practical Quantitation Limit for this Project |
| ND | Not Detected - indicates that the analyte was Not Detected |
| Cntr | Analysis was performed using this container |
| RegLmt | Regulatory Limit |
| LCS | Laboratory Control Sample |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| DUP | Sample Duplicate |
| %Rec | Percent Recovery |
| RPD | Relative Percent Difference |
| LOD | DoD Limit of Detection |
| LOQ | DoD Limit of Quantitation |
| DL | DoD Detection Limit |
| I | Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL) |
| (S) | Surrogate Compound |
| NC | Not Calculated |
| * | Result outside of QC limits |
| # | Please reference the result in the Results Section for analyte-level flags. |

## Project Notations

## Sample Notations

| Lab ID | Sample ID |
|---|---|

## Result Notations

| Notation Ref. | |
|---|---|
| 1 | The Method Blank for method SM2320B-2011 reported a value greater than the reporting level for the analyte Alkalinity, Total. The concentration was 10 |
| 2 | The Method Blank for method SM2320B-2011 reported a value greater than the reporting level for the analyte Alkalinity, Total. The concentration was 13.6 |
| 3 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 4 | The QC sample type STD 10 for method S4500HB-11 was outside the control limits for the analyte pH. The % Recovery was reported as 99.9 and the control limits were 100 to 101. |
| 5 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 6 | The QC sample type MS for method SW846 9066 was outside the control limits for the analyte Phenolics. The % Recovery was reported as 123 and the control limits were 90 to 110. |
| 7 | The concentration of this analyte was greater than 4 times the concentration of the spike added to the matrix spike. According to protocol, the calculation for percent recovery of the matrix spike is not valid. |
| 8 | See attached subcontract results for TOX from Geochemical Testing. |

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | 3100 River Road, Conestoga, PA | Collected | 08/05/2025 09:45 |
| Lab Sample ID | 3428878001 | Lab Receipt | 08/05/2025 15:55 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| pH, Field (SM4500B) | 5.23 | pH_Units | | Field | # |
| Specific Conductance, Field | 275 | umhos/cm | 1 | Field | # |
| Temperature | 22.60 | Deg. C | | Field | # |
| **METALS** | | | | | |
| Calcium, Dissolved | 13.8 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 13.1 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 7.4 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 7.2 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.011 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.010 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 1.6 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 1.5 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 19.4 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 18.3 | mg/L | 0.25 | EPA 200.7 | # |
| **SUBCONTRACTED ANALYSIS** | | | | | |
| Subcontracted Analysis | See attached | | | Subcontract | # |
| **VOLATILE ORGANICS** | | | | | |
| 1,1-Dichloroethane | 0.82 | ug/L | 0.50 | EPA 524.2 | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 11 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 11 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 46.1 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 5.1 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 7.25 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 265 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 5.7 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 162 | mg/L | 25 | SM2540C-15 | # |
| Turbidity | 0.40 | NTU | 0.30 | SM2130B-2011 | # |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3100 River Road, Conestoga, PA | Collected | 08/05/2025 09:45 |
| Lab Sample ID | 3428878001 | Lab Receipt | 08/05/2025 15:55 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| pH, Field (SM4500B) | 5.23 | | pH_Units | | Field | 1 | 08/05/2025 09:45 | E2P | P |
| Specific Conductance, Field | 275 | | umhos/cm | 1 | Field | 1 | 08/05/2025 09:45 | E2P | P |
| Temperature | 22.60 | | Deg. C | | Field | 1 | 08/05/2025 09:45 | E2P | P |

## METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Calcium, Dissolved | 13.8 | 7 | mg/L | 0.10 | EPA 200.7 | 1 | 08/14/2025 18:35 | MSY | F |
| Calcium, Total | 13.1 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/18/2025 12:53 | MSY | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/14/2025 18:35 | MSY | F |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/18/2025 12:53 | MSY | D1 |
| Magnesium, Dissolved | 7.4 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/14/2025 18:35 | MSY | F |
| Magnesium, Total | 7.2 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/18/2025 12:53 | MSY | D1 |
| Manganese, Dissolved | 0.011 | | mg/L | 0.0050 | EPA 200.7 | 1 | 08/14/2025 18:35 | MSY | F |
| Manganese, Total | 0.010 | | mg/L | 0.0025 | EPA 200.7 | 1 | 08/18/2025 12:53 | MSY | D1 |
| Potassium, Dissolved | 1.6 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/14/2025 18:35 | MSY | F |
| Potassium, Total | 1.5 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/18/2025 12:53 | MSY | D1 |
| Sodium, Dissolved | 19.4 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/14/2025 18:35 | MSY | F |
| Sodium, Total | 18.3 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/18/2025 12:53 | MSY | D1 |

## SUBCONTRACTED ANALYSIS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Subcontracted Analysis | See attached | 8 | | | Subcontract | 1 | 08/13/2025 16:36 | SUB | K |

## VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2025 14:10 | TMP | M |
| 1,1-Dichloroethane | 0.82 | | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2025 14:10 | TMP | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2025 14:10 | TMP | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2025 14:10 | TMP | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2025 14:10 | TMP | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2025 14:10 | TMP | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2025 14:10 | TMP | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2025 14:10 | TMP | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2025 14:10 | TMP | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2025 14:10 | TMP | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2025 14:10 | TMP | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2025 14:10 | TMP | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2025 14:10 | TMP | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2025 14:10 | TMP | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2025 14:10 | TMP | M |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2025 14:10 | TMP | M |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3100 River Road, Conestoga, PA | Collected | 08/05/2025 09:45 |
| Lab Sample ID | 3428878001 | Lab Receipt | 08/05/2025 15:55 |

## VOLATILE ORGANICS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 88.7% | 70 – 130 | 08/13/2025 14:10 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 11 | | mg/L | 5 | SM2320B-2011 | 1 | 08/13/2025 21:28 | JXK | A |
| Alkalinity, Total | 11 | 1,2,3 | mg/L | 5 | SM2320B-2011 | 1 | 08/13/2025 21:28 | JXK | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 08/11/2025 16:51 | AYS | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/08/2025 11:45 | KMS | C |
| Chloride | 46.1 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2025 12:34 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/06/2025 12:34 | J1W | A |
| Nitrate-N | 5.1 | | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2025 12:34 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2025 12:34 | J1W | A |
| pH | 7.25 | 4,5 | pH_Units | | S4500HB-11 | 1 | 08/13/2025 21:28 | JXK | A |
| Phenolics | ND | ND,6 | mg/L | 0.005 | EPA 420.4 | 1 | 08/08/2025 14:50 | ZEB | J |
| Specific Conductance | 265 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/12/2025 07:45 | MYM | A |
| Sulfate | 5.7 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2025 12:34 | J1W | A |
| Total Dissolved Solids | 162 | | mg/L | 25 | SM2540C-15 | 1 | 08/07/2025 16:25 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-14 | 1 | 08/07/2025 23:58 | PAG | H |
| Turbidity | 0.40 | | NTU | 0.30 | SM2130B-2011 | 1 | 08/06/2025 11:40 | AKH | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | Trip Blank | Collected | 08/05/2025 09:45 |
| Lab Sample ID | 3428878002 | Lab Receipt | 08/05/2025 15:55 |

## VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 22:30 | PDK | A |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 22:30 | PDK | A |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 22:30 | PDK | A |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 22:30 | PDK | A |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 22:30 | PDK | A |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 22:30 | PDK | A |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 22:30 | PDK | A |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 22:30 | PDK | A |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 22:30 | PDK | A |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 22:30 | PDK | A |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 22:30 | PDK | A |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 22:30 | PDK | A |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 22:30 | PDK | A |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 22:30 | PDK | A |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 22:30 | PDK | A |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/14/2025 22:30 | PDK | A |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 89.5% | 70 – 130 | 08/14/2025 22:30 | |

## Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3428878001 | 3100 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | Subcontract | N/A | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |
| 3428878002 | Trip Blank | EPA 524.2 | N/A | |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|---|---|---|---|---|---|---|---|
| 3428878001 | 3100 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | |
| | | EPA TRMD | 1460813 | 08/15/2025 08:41 | RMH | EPA 200.7 | 1461184 |
| | | EPA ACID | 1460745 | 08/14/2025 17:00 | MSY | EPA 200.7 | 1460830 |
| | | N/A | N/A | N/A | | Subcontract | |
| | | N/A | N/A | N/A | | EPA 524.2 | 1460395 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1458745 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1459188 |
| | | SW846 9066 | 1459008 | 08/07/2025 10:48 | ZEB | EPA 420.4 | 1459016 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1460044 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1459884 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1458823 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1460044 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1459883 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1458980 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1459103 |
| 3428878002 | Trip Blank | N/A | N/A | N/A | | EPA 524.2 | 1460762 |

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

# CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

3428878
Logged By: SLS
PM: SJB

of

Client Name: LCSWMA Landowner

Address: 3100 River Rd
Conestoga Pa 17516

Contact: Ann Kirchner
Phone#: 717-584-0030
Project Name/#: LCSWMA Quarterly
Bill To: LCSWMA
Purchase Order #:

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? [ ]

| | Container Type | AG | AN | AN | CG | | P | P | P | P | P |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Container Size | 40ml | 250ml | 125ml | 40ml | | 250ml | 125ml | 125ml | 1L | 500ml |
| | Preservative | HCL | H2SO4 | H2SO4 | ASCHCL | | H2SO4 | HNO3 | HNO3 | UNP | UNP |

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

ANALYSIS / METHOD REQUESTED

Enter Number of Containers Per Sample or Field Results Below.

| | Sample Description/Location (as it will appear on the lab report) | Date Collected mm/dd/yy | Time hh:mm | SDWA Sample Type (see key) | *G or C | **Matrix (See bottom of COC) | TOC | TOX | O-OH | EPA 524.2 Form 52 | FM | NH3-N, COD | Dissolved Metals Ca,Fe,Mg,Mn, K,Na | Metals Ca,Fe,Mg,Mn,K,Na | pH,TDS,NO2,NO3,Cl,SO4,F, SpC,Tb | Alkalinity, HCO3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3100RIVERRD | 8-5-25 | 0945 | | G | DW | 2 | 2 | 1 | 3 | x | 1 | 2 | 2 | 1 | 1 |
| 2 | Trip Blank | 8-5-25 | NA | | G | Di | | | | 2 | | | | | | |
| 3 | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |

Circle Sample Collector: ALS Tech / Client
Name: Evan P ID:

Comments: PH- 5.23 temp- 22.6c Spc- 275

| Date: | Time | | Relinquished By / Company Name | | Received By / Company Name |
|---|---|---|---|---|---|
| 8-5-25 | 1555 | 1 | ALS | 2 | mpts |
| | | 3 | | 4 | |
| | | 5 | | 6 | |
| | | 7 | | 8 | |
| | | 9 | | 10 | |

* G=Grab; C=Composite
**Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

(Receiving Lab)
WO Temp (°C) 2°

Receipt Info completed by:
WV Containers 0-6°C Y N NA

| | | | |
|---|---|---|---|
| Cooler Custody Seals Intact | Y | N | NA |
| Sample Custody Seal Intact | Y | N | NA |
| Received on Ice | Y | N | NA |
| Coolers & Samples Intact | Y | N | |
| Correct Containers Provided | Y | N | |
| Sample Label/COC Agree | Y | N | |
| Adequate Sample Volumes | Y | N | |
| VOA only: Trip Blank | Y | N | NA |
| NJ ≤ 4 days? | Y | N | |

Courier/Tracking #

Deviations? NO YES
If YES, list below:

Client contact:
Date/Tech:

Sample(s) for Radiation testing? Y N
Reportable SDWA Sample(s)? Y N
SDWA State of Origin?
PWSID #
PWS Contact: PWS Phone #:

Rad Screen (uCi)
New Source? Y N
New Source Contact:

SDWA Sample Type Key: D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

Contains Short Hold Testing YES NO
Internal Use: If less than 48 hours - notify lab upon receipt

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ]

EDDs: [ ] Excel Summary [ ] Equis [ ] Custom

Sample Disposal: Lab [x] Special [ ]

EDDS: Format Type

State Samples Collected In: [ ] NY [ ] NJ [x] PA [ ] WV [ ] FL [ ] other

# Middletown Sample Condition Form

Client LCSWMA Workorder 34288758

Temp °C 2° Therm ID 649 Ice? (Y) N N/A Initials & Date DB 8/5/25

Fedex UPS Client (ALS) Other Tracking # _____

| | Yes | No[1] | N/A | Comments |
|---|---|---|---|---|
| Cooler Custody Seals present & intact | | | ✓ | |
| Sample Custody Seals present & intact | | | ✓ | |
| Chain-of-Custody present | ✓ | | | |
| Sample collector name present<br>*If not present, must contact PM/client to request name.* | ✓ | | | |
| COC/bottle labels complete & in agreement | ✓ | | | |
| •Sample location | ✓ | | | |
| •Date and time of sample collection | ✓ | | | |
| •Type(s) of preservation | ✓ | | | |
| •Number of containers | ✓ | | | |
| •Composite or grab | ✓ | | | |
| •Matrix | ✓ | | | |
| Proper containers, preservation, and volume per method | ✓ | | | |
| Received within hold time | ✓ | | | |
| Containers intact | ✓ | | | |
| Trip blanks present (EPA 504, EPA 524) | | | ✓ | |
| Field blanks present (Hg 1631, PFAS) | | | ✓ | |
| NJ ≤ 4 Days | | | ✓ | |
| CR6 Samples Filtered | | | ✓ | |
| OP Samples Filtered | | | ✓ | |
| WV Containers 0-6°C | | | ✓ | |
| SDWA compliance reporting | | | ✓ | |

[1] *If No, provide comment*

Rad Screen (uCi) _____

PM - PM to contact client
N/A - Not Applicable
UC - Updated coc with missing information

Review Comments:

_____

_____

_____



8/23/2025 8:37 PM

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Wednesday, August 13, 2025

Susan Scherer
ALS ENVIRONMENTAL
301 FULLING MILL ROAD
MIDDLETOWN, PA 17057

Order No.: G2508402

Dear Susan Scherer:

Geochemical Testing received 1 sample(s) on 8/7/2025 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Joelle Streczywilk
Environmental Laboratory Manager

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

## Geochemical Testing

**Date:** *13-Aug-25*

**CLIENT:** ALS ENVIRONMENTAL
**Project:**
**Lab Order:** G2508402

# CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

**Glossary:**

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative
ND - Not Detected
MCL - Contaminant Limit
J - Indicates an estimated value.
Q - Qualifier
QL -Quantitation Limit
DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

# Glossary (continued)

1 Spike recovery limits are not applicable when the sample concentration exceeds the spike concentration by a factor of four or greater.

B1 Dilution water blank exceeded method criterion.

C1 CCV recovery above the acceptance limits. Results may be biased high.

C2 CCV recovery below the acceptance limits. Results may be biased low.

C3 ICV recovery above the acceptance limits. Results may be biased high.

C4 ICV recovery below the acceptance limits. Results may be biased low.

D1 The analysis did not meet the minimum DO depletion of at least 2 mg/L.

D2 The analysis did not meet the minimum residual DO of at least 1 mg/L.

D3 Sample required dilution due to a matrix interference.

D4 Sample was diluted in the extraction steps due to marked matrix interferences.

D5 Sample required dilution due to a chloride interference.

D6 Sample was diluted and the reporting limits were raised to achieve method compliant internal standard recovery.

D7 Sample was digested at a dilution due to the formation of a post-digestion precipitate.

D8 Sample was digested at a dilution to achieve method compliant matrix spike recovery.

D9 Sample was digested at a dilution to meet method compliant digestion criteria.

E2 Unable to obtain a stable weight within specified limits due to sample matrix. Value is estimated.

F1 Fecal sample tested positive for residual chlorine.

H1 Due to under-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H2 Due to over-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H3 Sample was re-analyzed outside of hold time due to error during original analysis.

H4 The Nitrite result used to report Nitrate was analyzed past the 48-hour holding time.

I1 Internal standard recovery above method acceptance limits. Results are estimated.

I2 Internal standard recovery was below method acceptance limits. Results are estimated.

IP One of the instrument performance checks ( ) did not meet the acceptance criteria.

L1 LCS above the acceptance limits. Result may be biased high.

L2 LCS below the acceptance limits. Result may be biased low.

L3 Analyte was spiked into the LCS, but was not recovered.

M1 Matrix Spike recovery above the acceptance limits.

M2 Matrix Spike recovery below the acceptance limits.

M4 The matrix spike failed high for the surrogate.

M5 The matrix spike failed low for the surrogate.

M6 The reporting limits were raised due to sample matrix interference.

M7 Recovery for matrix spike could not be quantified due to matrix interference.

M8 Analyte was spiked into the MS, but was not recovered.

M9 Analyte concentration was determined by the method of standard addition (MSA).

N1 The lab does not hold accreditation from PA-DEP for this parameter by this method

N2 PADEP does not accredit labs for this analyte by this method.

N3 The lab is accredited for this method in West Virginia, but not in PA (its primary accrediting body).

N4 PADEP does not accredit labs for this analyte by this method in drinking water.

O1 The flashpoint tester cannot detect below 50 degrees F.

O2 Result is temperature of the sample when flame observed. No flash observed. Result qualified.

O4 Sample was received with headspace.

O5 Sample was received in incorrect container and is not compliant with 40CFR136 Table II.

O6 Insufficient sample volume was received to comply with the method.

P1 The pH of the sample was >2 and is not compliant with 40CFR136 Table II.

P2 Sample contained residual chlorine and is not compliant with 40CFR136 Table II

P3 The pH of the sample was <10 and is not compliant with 40CFR136 Table II.

P4 Field preservation does not meet EPA or method recommendations for this analysis.

P5 Acid preservation may not be appropriate for the analysis of 2-Chloroethylvinyl ether.

P6 Sample required additional preservative upon receipt.

P7 The sample was received unpreserved.

P8 The pH of the sample was < 9 and is not compliant with 40 CFR136 Table II.

Q2 Reported lower result from the dual detector. See case narrative.

Q3 Sample detected multiple Aroclors. See case narrative.

Q4 Weathering or degradation observed for PCBs. See case narrative.

Q5 Positive PCB interference qualified in peak(s) that cannot be removed. See case narrative.

Q6 Peak Height/Area used in quantification is documented in the case narrative.

R Relative Percent Difference (RPD) was above the control limit.

R1 RPD above control limits between matrix spike and MS duplicates

R2 RPD above the control limit between duplicates.

R3 RSD above the control limit between replicates.

R4 RPD above control limits between Inorganic Carbon check and spike.

R5 RPD above control limits between control sample and control sample duplicates.

R6 Dual Column/Detector RDP >40%. Higher result reported.

S2 Surrogate recovery in the blank was below the control limit.

S3 Surrogate recovery in the blank was above the control limit.

S4 Surrogate recovery in the LCS is above the control limit.

S5 Surrogate recovery in the LCS is below the control limit.

SR Analyte recovery was outside the accepted recovery limits and above the control limit for RPD.

TC The MS tune check (tailing factor) did not meet the acceptance criteria.

# Laboratory Results

## Geochemical Testing

**Date:** *13-Aug-25*

| | | | |
|---|---|---|---|
| **CLIENT:** | ALS ENVIRONMENTAL | **Client Sample ID:** | 3428878001 |
| **Lab Order:** | G2508402 | | 3100 River Road, Conestoga, PA |
| **Project:** | | **Sampled By:** | ALS |
| **Lab ID:** | G2508402-001 | **Collection Date:** | 8/5/2025 9:45:00 AM |
| **Matrix:** | AQUEOUS | **Received Date:** | 8/7/2025 2:14:03 PM |

| Analyses | Result | QL | Q | Units | DF | Date Prepared | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **INDICATOR ORGANIC PARAMETERS** | | Analyst: **ACW** | | | | **EPA 9020 B** | **EPA 9020 B** |
| Total Organic Halogen | < 50 | 50 | | µg/L | 1 | 08/11/25 5:00 AM | 08/11/25 9:16 AM |

I.D. 56-00306 PA DEP

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 |

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**

Project 3RD QTR 2025-3106 RIVER RD
Workorder 3429255
Report ID 452136 on 8/23/2025

## Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 06, 2025.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

Susan Scherer

**Susan Scherer** *(ALS Digital Signature)*
Project Coordinator

## Sample Summary

| Lab ID | Sample ID | Matrix | Date Collected | Date Received | Collector | Collection Company |
|---|---|---|---|---|---|---|
| 3429255001 | 3106 River Road, Conestoga, PA | Water | 08/06/2025 10:45 | 08/06/2025 16:40 | EMP | ALS Environmental-Middletown |

# Reference

## Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

## Standard Acronyms/Flags

| | |
|---|---|
| J | Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte |
| U | Indicates that the analyte was Not Detected (ND) above the MDL |
| N | Indicates presumptive evidence of the presence of a compound |
| MDL | Method Detection Limit |
| PQL | Practical Quantitation Limit |
| RDL | Practical Quantitation Limit for this Project |
| ND | Not Detected - indicates that the analyte was Not Detected |
| Cntr | Analysis was performed using this container |
| RegLmt | Regulatory Limit |
| LCS | Laboratory Control Sample |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| DUP | Sample Duplicate |
| %Rec | Percent Recovery |
| RPD | Relative Percent Difference |
| LOD | DoD Limit of Detection |
| LOQ | DoD Limit of Quantitation |
| DL | DoD Detection Limit |
| I | Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL) |
| (S) | Surrogate Compound |
| NC | Not Calculated |
| * | Result outside of QC limits |
| # | Please reference the result in the Results Section for analyte-level flags. |

## Project Notations

## Sample Notations

| Lab ID | Sample ID |
|---|---|

## Result Notations

| Notation Ref. | |
|---|---|
| 1 | The Method Blank for method SM2320B-2011 reported a value greater than the reporting level for the analyte Alkalinity, Total. The concentration was 10 |
| 2 | The Method Blank for method SM2320B-2011 reported a value greater than the reporting level for the analyte Alkalinity, Total. The concentration was 13.6 |
| 3 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 4 | The QC sample type STD 10 for method S4500HB-11 was outside the control limits for the analyte pH. The % Recovery was reported as 99.9 and the control limits were 100 to 101. |
| 5 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 6 | The QC sample type DUP for method SM2540C-15 was outside the control limits for the analyte Total Dissolved Solids. The RPD was reported as 8.48 and the upper control limit is 5. |
| 7 | See attached subcontract results for TOX from Geochemical Testing |

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | 3106 River Road, Conestoga, PA | Collected | 08/06/2025 10:45 |
| Lab Sample ID | 3429255001 | Lab Receipt | 08/06/2025 16:40 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| pH, Field (SM4500B) | 5.61 | pH_Units | | Field | # |
| Specific Conductance, Field | 494 | umhos/cm | 1 | Field | # |
| Temperature | 16.90 | Deg. C | | Field | # |
| **METALS** | | | | | |
| Calcium, Dissolved | 23.3 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 22.3 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 14.7 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 14.2 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.037 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.035 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 2.0 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 1.9 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 45.6 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 41.4 | mg/L | 0.25 | EPA 200.7 | # |
| **SUBCONTRACTED ANALYSIS** | | | | | |
| Subcontracted Analysis | See attached | | | Subcontract | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 16 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 16 | mg/L | 5 | SM2320B-2011 | # |
| Ammonia-N, Low Level | 0.98 | mg/L | 0.10 | SM 4500-NH3G | # |
| Chloride | 105 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 7.2 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 7.21 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 480 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 5.1 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 344 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 0.74 | mg/L | 0.50 | SM5310B-14 | # |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3106 River Road, Conestoga, PA | Collected | 08/06/2025 10:45 |
| Lab Sample ID | 3429255001 | Lab Receipt | 08/06/2025 16:40 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| pH, Field (SM4500B) | 5.61 | | pH_Units | | Field | 1 | 08/06/2025 10:45 | E2P | P |
| Specific Conductance, Field | 494 | | umhos/cm | 1 | Field | 1 | 08/06/2025 10:45 | E2P | P |
| Temperature | 16.90 | | Deg. C | | Field | 1 | 08/06/2025 10:45 | E2P | P |

## METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Calcium, Dissolved | 23.3 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/14/2025 19:22 | MSY | F |
| Calcium, Total | 22.3 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/18/2025 13:21 | MSY | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/14/2025 19:22 | MSY | F |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/18/2025 13:21 | MSY | D1 |
| Magnesium, Dissolved | 14.7 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/14/2025 19:22 | MSY | F |
| Magnesium, Total | 14.2 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/18/2025 13:21 | MSY | D1 |
| Manganese, Dissolved | 0.037 | | mg/L | 0.0050 | EPA 200.7 | 1 | 08/14/2025 19:22 | MSY | F |
| Manganese, Total | 0.035 | | mg/L | 0.0025 | EPA 200.7 | 1 | 08/18/2025 13:21 | MSY | D1 |
| Potassium, Dissolved | 2.0 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/14/2025 19:22 | MSY | F |
| Potassium, Total | 1.9 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/18/2025 13:21 | MSY | D1 |
| Sodium, Dissolved | 45.6 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/14/2025 19:22 | MSY | F |
| Sodium, Total | 41.4 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/18/2025 13:21 | MSY | D1 |

## SUBCONTRACTED ANALYSIS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Subcontracted Analysis | See attached | 7 | | | Subcontract | 1 | 08/13/2025 16:43 | SUB | K |

## VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 13:59 | TMP | M |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 13:59 | TMP | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 13:59 | TMP | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 13:59 | TMP | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 13:59 | TMP | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 13:59 | TMP | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 13:59 | TMP | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 13:59 | TMP | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 13:59 | TMP | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 13:59 | TMP | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 13:59 | TMP | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 13:59 | TMP | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 13:59 | TMP | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 13:59 | TMP | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 13:59 | TMP | M |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 13:59 | TMP | M |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3106 River Road, Conestoga, PA | Collected | 08/06/2025 10:45 |
| Lab Sample ID | 3429255001 | Lab Receipt | 08/06/2025 16:40 |

## VOLATILE ORGANICS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 88.3% | 70 – 130 | 08/15/2025 13:59 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 16 | | mg/L | 5 | SM2320B-2011 | 1 | 08/14/2025 06:37 | JXK | A |
| Alkalinity, Total | 16 | 1,2,3 | mg/L | 5 | SM2320B-2011 | 1 | 08/14/2025 06:37 | JXK | A |
| Ammonia-N, Low Level | 0.98 | | mg/L | 0.10 | SM 4500-NH3G | 1 | 08/11/2025 20:10 | AYS | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/11/2025 10:55 | KMS | C |
| Chloride | 105 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/07/2025 11:53 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/07/2025 11:53 | J1W | A |
| Nitrate-N | 7.2 | | mg/L | 1.0 | EPA 300.0 | 2 | 08/07/2025 11:53 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/07/2025 11:53 | J1W | A |
| pH | 7.21 | 4,5 | pH_Units | | S4500HB-11 | 1 | 08/14/2025 06:37 | JXK | A |
| Phenolics | ND | ND | mg/L | 0.005 | EPA 420.4 | 1 | 08/19/2025 13:14 | AKH | J |
| Specific Conductance | 480 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/12/2025 07:45 | MYM | A |
| Sulfate | 5.1 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/07/2025 11:53 | J1W | A |
| Total Dissolved Solids | 344 | 6 | mg/L | 25 | SM2540C-15 | 1 | 08/08/2025 15:20 | RAG | A |
| Total Organic Carbon (TOC) | 0.74 | | mg/L | 0.50 | SM5310B-14 | 1 | 08/13/2025 00:00 | PAG | H |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 08/07/2025 10:25 | AKH | A |

## Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3429255001 | 3106 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | Subcontract | N/A | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|---|---|---|---|---|---|---|---|
| 3429255001 | 3106 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | |
| | | EPA TRMD | 1460813 | 08/15/2025 08:41 | RMH | EPA 200.7 | 1461184 |
| | | EPA ACID | 1460745 | 08/14/2025 17:00 | MSY | EPA 200.7 | 1460830 |
| | | N/A | N/A | N/A | | Subcontract | |
| | | N/A | N/A | N/A | | EPA 524.2 | 1460833 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1458941 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1459875 |
| | | SW846 9066 | 1461233 | 08/18/2025 10:49 | AKH | EPA 420.4 | 1461237 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1460044 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1459876 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1458962 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1460044 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1459883 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1459187 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1459328 |

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

# CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

3429255
Logged By: SLS
PM: SJB

55 of

(by Receiving Lab)

**Client Name:** LCSWMA Aaron Fry

**Address:** 3106 River Rd
Conestoga Pa 17516

**Contact:** Aaron Fry
**Phone#:** 717-669-6831
**Project Name/#:** LCSWMA Quarterly
**Bill To:** LCSWMA Aaron Fry
**Purchase Order #:**

TAT
[x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

**Date Required:** **Approved?**
**Email?** [ ]

| Container Type | AG | AN | AN | CG | | P | P | P | P | P |
|---|---|---|---|---|---|---|---|---|---|---|
| Container Size | 40ml | 250ml | 125ml | 40ml | | 250ml | 125ml | 125ml | 1L | 500ml |
| Preservative | HCL | H2SO4 | H2SO4 | ASCHCL | | H2SO4 | HNO3 | HNO3 | UNP | UNP |

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

**ANALYSIS / METHOD REQUESTED**

| | Sample Description/Location (as it will appear on the lab report) | Date Collected mm/dd/yy | Time hh:mm | SDWA Sample Type (see key) | *G or C | **Matrix (See bottom of COC) | TOC | TOX | O-OH | EPA 524.2 Form 52 | FM | NH3-N, COD | Dissolved Metals Ca,Fe,Mg,Mn, K,Na | Metals Ca,Fe,Mg,Mn,K,Na | pH,TDS,NO2,NO3,Cl,SO4,F, SpC,Tb | Alkalinity, HCO3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Enter Number of Containers Per Sample or Field Results Below. | | | | | | | | | |
| 1 | 3106RIVERRD | 8-6-25 | 1045 | | G | DW | 2 | 2 | 1 | 3 | x | 1 | 2 | 2 | 1 | 1 |
| 2 | Trip Blank | 8-6-25 | NA | | G | Di | | | | 2 | | | | | | |
| 3 | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |

Temp Taken By: Therm ID: WO Temp (°C)

*Receipt Info completed by:*_____ WV Containers 0-6°C Y N NA

| | | | |
|---|---|---|---|
| Cooler Custody Seals Intact | Y | N | NA |
| Sample Custody Seal Intact | Y | N | NA |
| Received on Ice | Y | N | NA |
| Coolers & Samples Intact | Y | N | |
| Correct Containers Provided | Y | N | |
| Sample Label/COC Agree | Y | N | |
| Adequate Sample Volumes | Y | N | |
| VOA only: Trip Blank | Y | N | NA |

NJ ≤ 4 days? Y N
Courier/Tracking #

Deviations? NO YES
If YES, list below

**Client contact:**
Date/Tech.

Sample(s) for Radiation testing? Y N
Reportable SDWA Sample(s)? Y N
SDWA State of Origin?_____
PWSID #__

Rad Screen (uCi)_____
New Source? Y N
New Source Contact:

PWS Contact:_____ PWS Phone #:_____

**SDWA Sample Type Key:** D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

**Sample/COC Remarks**

**Contains Short Hold Testing YES NO**
**Internal Use: If less than 48 hours - notify lab upon receipt**

**Circle Sample Collector: ALS Tech / Client**
**Name:** Evan **ID:**

**Comments:** PH. 5.61 temp. 16.9°C Spc. 494

| Date: | Time | Relinquished By / Company Name | | Received By / Company Name | |
|---|---|---|---|---|---|
| 8-6-25 | 1640 | 1 ALS | | 2 | |
| | | 3 | | 4 | |
| | | 5 | | 6 | |
| | | 7 | | 8 | |
| | | 9 | | 10 | |

**Data Deliverables**
[ ] Standard Lvl 1 [ ] CLP-like [ ] HSCA
[ ] Standard Lvl 2 [ ] DOD [ ] Landfill
[ ] Standard Lvl 3 [ ] NJ RED [ ] NJ GW
[ ] Standard Lvl 4 [ ] NJ Full [ ] _____

**EDDs**
[ ] Excel Summary
[ ] Equis
[ ] Custom

**Sample Disposal**
Lab [x]
Special [ ]

**EDDS:** Format Type

**State Samples Collected In**
[ ] NY
[ ] NJ
[x] PA
[ ] WV
[ ] FL
____ other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

**ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057**

Rev 07.06.2023

# Middletown Sample Condition Form

Client LCSWMA Workorder 3429255

Temp °C 0 Therm ID 569 Ice? (Y) N N/A Initials & Date LW 8/25

Fedex UPS Client (ALS) Other Tracking # _____

| | Yes | No[1] | N/A | Comments |
|---|---|---|---|---|
| Cooler Custody Seals present & intact | | | X | |
| Sample Custody Seals present & intact | | | X | |
| Chain-of-Custody present | X | | | |
| Sample collector name present<br>*If not present, must contact PM/client to request name.* | X | | | |
| COC/bottle labels complete & in agreement | X | | | |
| •Sample location | X | | | |
| •Date and time of sample collection | X | | | |
| •Type(s) of preservation | X | | | |
| •Number of containers | X | | | |
| •Composite or grab | X | | | |
| •Matrix | X | | | |
| Proper containers, preservation, and volume per method | X | | | |
| Received within hold time | X | | | |
| Containers intact | X | | | |
| Trip blanks present (EPA 504, EPA 524) | X | | | |
| Field blanks present (Hg 1631, PFAS) | | | X | |
| NJ ≤ 4 Days | | | X | |
| CR6 Samples Filtered | | | X | |
| OP Samples Filtered | | | X | |
| WV Containers 0-6°C | | | X | |
| SDWA compliance reporting | | | X | |

[1] *If No, provide comment*

Rad Screen (uCi) _____

PM - PM to contact client
N/A - Not Applicable
UC - Updated coc with missing information

Review Comments:

_____

_____

_____

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Wednesday, August 13, 2025

Susan Scherer
ALS ENVIRONMENTAL
301 FULLING MILL ROAD
MIDDLETOWN, PA 17057

Order No.: G2508488

Dear Susan Scherer:

Geochemical Testing received 1 sample(s) on 8/8/2025 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Joelle Streczywilk
Environmental Laboratory Manager

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

## Geochemical Testing

**Date:** *13-Aug-25*

**CLIENT:** ALS ENVIRONMENTAL
**Project:**
**Lab Order:** G2508488

# CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

**Glossary:**

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative
ND - Not Detected
MCL - Contaminant Limit
J - Indicates an estimated value.
Q - Qualifier
QL -Quantitation Limit
DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

# Glossary (continued)

1 Spike recovery limits are not applicable when the sample concentration exceeds the spike concentration by a factor of four or greater.

B1 Dilution water blank exceeded method criterion.

C1 CCV recovery above the acceptance limits. Results may be biased high.

C2 CCV recovery below the acceptance limits. Results may be biased low.

C3 ICV recovery above the acceptance limits. Results may be biased high.

C4 ICV recovery below the acceptance limits. Results may be biased low.

D1 The analysis did not meet the minimum DO depletion of at least 2 mg/L.

D2 The analysis did not meet the minimum residual DO of at least 1 mg/L.

D3 Sample required dilution due to a matrix interference.

D4 Sample was diluted in the extraction steps due to marked matrix interferences.

D5 Sample required dilution due to a chloride interference.

D6 Sample was diluted and the reporting limits were raised to achieve method compliant internal standard recovery.

D7 Sample was digested at a dilution due to the formation of a post-digestion precipitate.

D8 Sample was digested at a dilution to achieve method compliant matrix spike recovery.

D9 Sample was digested at a dilution to meet method compliant digestion criteria.

E2 Unable to obtain a stable weight within specified limits due to sample matrix. Value is estimated.

F1 Fecal sample tested positive for residual chlorine.

H1 Due to under-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H2 Due to over-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H3 Sample was re-analyzed outside of hold time due to error during original analysis.

H4 The Nitrite result used to report Nitrate was analyzed past the 48-hour holding time.

I1 Internal standard recovery above method acceptance limits. Results are estimated.

I2 Internal standard recovery was below method acceptance limits. Results are estimated.

IP One of the instrument performance checks ( ) did not meet the acceptance criteria.

L1 LCS above the acceptance limits. Result may be biased high.

L2 LCS below the acceptance limits. Result may be biased low.

L3 Analyte was spiked into the LCS, but was not recovered.

M1 Matrix Spike recovery above the acceptance limits.

M2 Matrix Spike recovery below the acceptance limits.

M4 The matrix spike failed high for the surrogate.

M5 The matrix spike failed low for the surrogate.

M6 The reporting limits were raised due to sample matrix interference.

M7 Recovery for matrix spike could not be quantified due to matrix interference.

M8 Analyte was spiked into the MS, but was not recovered.

M9 Analyte concentration was determined by the method of standard addition (MSA).

N1 The lab does not hold accreditation from PA-DEP for this parameter by this method

N2 PADEP does not accredit labs for this analyte by this method.

N3 The lab is accredited for this method in West Virginia, but not in PA (its primary accrediting body).

N4 PADEP does not accredit labs for this analyte by this method in drinking water.

O1 The flashpoint tester cannot detect below 50 degrees F.

O2 Result is temperature of the sample when flame observed. No flash observed. Result qualified.

O4 Sample was received with headspace.

O5 Sample was received in incorrect container and is not compliant with 40CFR136 Table II.

O6 Insufficient sample volume was received to comply with the method.

P1 The pH of the sample was >2 and is not compliant with 40CFR136 Table II.

P2 Sample contained residual chlorine and is not compliant with 40CFR136 Table II

P3 The pH of the sample was <10 and is not compliant with 40CFR136 Table II.

P4 Field preservation does not meet EPA or method recommendations for this analysis.

P5 Acid preservation may not be appropriate for the analysis of 2-Chloroethylvinyl ether.

P6 Sample required additional preservative upon receipt.

P7 The sample was received unpreserved.

P8 The pH of the sample was < 9 and is not compliant with 40 CFR136 Table II.

Q2 Reported lower result from the dual detector. See case narrative.

Q3 Sample detected multiple Aroclors. See case narrative.

Q4 Weathering or degradation observed for PCBs. See case narrative.

Q5 Positive PCB interference qualified in peak(s) that cannot be removed. See case narrative.

Q6 Peak Height/Area used in quantification is documented in the case narrative.

R Relative Percent Difference (RPD) was above the control limit.

R1 RPD above control limits between matrix spike and MS duplicates

R2 RPD above the control limit between duplicates.

R3 RSD above the control limit between replicates.

R4 RPD above control limits between Inorganic Carbon check and spike.

R5 RPD above control limits between control sample and control sample duplicates.

R6 Dual Column/Detector RDP >40%. Higher result reported.

S2 Surrogate recovery in the blank was below the control limit.

S3 Surrogate recovery in the blank was above the control limit.

S4 Surrogate recovery in the LCS is above the control limit.

S5 Surrogate recovery in the LCS is below the control limit.

SR Analyte recovery was outside the accepted recovery limits and above the control limit for RPD.

TC The MS tune check (tailing factor) did not meet the acceptance criteria.

# Laboratory Results

## Geochemical Testing

**Date:** *13-Aug-25*

| | | | |
|---|---|---|---|
| **CLIENT:** | ALS ENVIRONMENTAL | **Client Sample ID:** | 3429255001 |
| **Lab Order:** | G2508488 | | 3106 River Road, Conestoga, PA |
| **Project:** | | **Sampled By:** | ALS |
| **Lab ID:** | G2508488-001 | **Collection Date:** | 8/6/2025 10:45:00 AM |
| **Matrix:** | AQUEOUS | **Received Date:** | 8/8/2025 12:15:58 PM |

| Analyses | Result | QL | Q | Units | DF | Date Prepared | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **INDICATOR ORGANIC PARAMETERS** | | Analyst: **ACW** | | | | **EPA 9020 B** | **EPA 9020 B** |
| Total Organic Halogen | 70 | 50 | O4 | µg/L | 1 | 08/11/25 5:00 AM | 08/11/25 9:14 AM |

**NOTES:**
O4 - Sample was received with headspace.

I.D. 56-00306 PA DEP

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 |

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **Lancaster County Solid Waste Authority**

Project 3RD QTR 2025-3125 RIVER RD
Workorder 3429258
Report ID 453969 on 8/28/2025

## Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 06, 2025.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Jordan Bigler - Lancaster County Solid Waste Authority
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

Susan Scherer

**Susan Scherer** *(ALS Digital Signature)*
Project Coordinator

## Sample Summary

| Lab ID | Sample ID | Matrix | Date Collected | Date Received | Collector | Collection Company |
|---|---|---|---|---|---|---|
| 3429258001 | 3125 River Road, Conestoga, PA | Water | 08/06/2025 10:20 | 08/06/2025 16:40 | EMP | ALS Environmental-Middletown |
| 3429258002 | Trip Blank | Water | 08/06/2025 10:20 | 08/06/2025 16:40 | EMP | ALS Environmental-Middletown |
| 3429258003 | Field Blank | Water | 08/06/2025 10:25 | 08/06/2025 16:40 | EMP | ALS Environmental-Middletown |

# Reference

## Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

## Standard Acronyms/Flags

| | |
|---|---|
| J | Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte |
| U | Indicates that the analyte was Not Detected (ND) above the MDL |
| N | Indicates presumptive evidence of the presence of a compound |
| MDL | Method Detection Limit |
| PQL | Practical Quantitation Limit |
| RDL | Practical Quantitation Limit for this Project |
| ND | Not Detected - indicates that the analyte was Not Detected |
| Cntr | Analysis was performed using this container |
| RegLmt | Regulatory Limit |
| LCS | Laboratory Control Sample |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| DUP | Sample Duplicate |
| %Rec | Percent Recovery |
| RPD | Relative Percent Difference |
| LOD | DoD Limit of Detection |
| LOQ | DoD Limit of Quantitation |
| DL | DoD Detection Limit |
| I | Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL) |
| (S) | Surrogate Compound |
| NC | Not Calculated |
| * | Result outside of QC limits |
| # | Please reference the result in the Results Section for analyte-level flags. |

## Project Notations

## Sample Notations

| Lab ID | Sample ID | | |
|---|---|---|---|
| 3429258003 | Field Blank | **S1** | The 524.2 analysis of this sample was initially run within holding time. Re-analysis was conducted past the fourteen day sample holding time due to a pH result of >2 during the preservation check of the initial run. |

## Result Notations

| Notation Ref. | |
|---|---|
| 1 | The Method Blank for method SM2320B-2011 reported a value greater than the reporting level for the analyte Alkalinity, Total. The concentration was 10 |
| 2 | The Method Blank for method SM2320B-2011 reported a value greater than the reporting level for the analyte Alkalinity, Total. The concentration was 13.6 |
| 3 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 4 | The QC sample type STD 10 for method S4500HB-11 was outside the control limits for the analyte pH. The % Recovery was reported as 99.9 and the control limits were 100 to 101. |
| 5 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 6 | The QC sample type MS for method SW846 9066 was outside the control limits for the analyte Phenolics. The % Recovery was reported as 86.1 and the control limits were 90 to 110. |
| 7 | See attached subcontract results for TOX from Geochemical Testing. |

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | 3125 River Road, Conestoga, PA | Collected | 08/06/2025 10:20 |
| Lab Sample ID | 3429258001 | Lab Receipt | 08/06/2025 16:40 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| pH, Field (SM4500B) | 6.91 | pH_Units | | Field | # |
| Specific Conductance, Field | 841 | umhos/cm | 1 | Field | # |
| Temperature | 20.40 | Deg. C | | Field | # |
| **METALS** | | | | | |
| Calcium, Dissolved | 0.16 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 0.19 | mg/L | 0.050 | EPA 200.7 | # |
| Potassium, Dissolved | 0.50 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 0.55 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 183 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 164 | mg/L | 0.25 | EPA 200.7 | # |
| **SUBCONTRACTED ANALYSIS** | | | | | |
| Subcontracted Analysis | See attached | | | Subcontract | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 142 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 150 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 133 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 5.0 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 8.38 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 812 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 19.4 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 462 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 0.80 | mg/L | 0.50 | SM5310B-14 | # |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3125 River Road, Conestoga, PA | Collected | 08/06/2025 10:20 |
| Lab Sample ID | 3429258001 | Lab Receipt | 08/06/2025 16:40 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| pH, Field (SM4500B) | 6.91 | | pH_Units | | Field | 1 | 08/06/2025 10:20 | E2P | P |
| Specific Conductance, Field | 841 | | umhos/cm | 1 | Field | 1 | 08/06/2025 10:20 | E2P | P |
| Temperature | 20.40 | | Deg. C | | Field | 1 | 08/06/2025 10:20 | E2P | P |

## METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Calcium, Dissolved | 0.16 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/14/2025 19:14 | MSY | F |
| Calcium, Total | 0.19 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/18/2025 13:34 | MSY | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/14/2025 19:14 | MSY | F |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/18/2025 13:34 | MSY | D1 |
| Magnesium, Dissolved | ND | ND | mg/L | 0.10 | EPA 200.7 | 1 | 08/14/2025 19:14 | MSY | F |
| Magnesium, Total | ND | ND | mg/L | 0.050 | EPA 200.7 | 1 | 08/18/2025 13:34 | MSY | D1 |
| Manganese, Dissolved | ND | ND | mg/L | 0.0050 | EPA 200.7 | 1 | 08/14/2025 19:14 | MSY | F |
| Manganese, Total | ND | ND | mg/L | 0.0025 | EPA 200.7 | 1 | 08/18/2025 13:34 | MSY | D1 |
| Potassium, Dissolved | 0.50 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/14/2025 19:14 | MSY | F |
| Potassium, Total | 0.55 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/18/2025 13:34 | MSY | D1 |
| Sodium, Dissolved | 183 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/14/2025 19:14 | MSY | F |
| Sodium, Total | 164 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/18/2025 13:34 | MSY | D1 |

## SUBCONTRACTED ANALYSIS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Subcontracted Analysis | See attached | 7 | | | Subcontract | 1 | 08/13/2025 16:44 | SUB | K |

## VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 15:54 | TMP | M |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 15:54 | TMP | M |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 15:54 | TMP | M |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 15:54 | TMP | M |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 15:54 | TMP | M |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 15:54 | TMP | M |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 15:54 | TMP | M |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 15:54 | TMP | M |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 15:54 | TMP | M |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 15:54 | TMP | M |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 15:54 | TMP | M |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 15:54 | TMP | M |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 15:54 | TMP | M |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 15:54 | TMP | M |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 15:54 | TMP | M |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 15:54 | TMP | M |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | 3125 River Road, Conestoga, PA | Collected | 08/06/2025 10:20 |
| Lab Sample ID | 3429258001 | Lab Receipt | 08/06/2025 16:40 |

## VOLATILE ORGANICS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 88.9% | 70 – 130 | 08/15/2025 15:54 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 142 | | mg/L | 5 | SM2320B-2011 | 1 | 08/14/2025 07:49 | JXK | A |
| Alkalinity, Total | 150 | 1,2,3 | mg/L | 5 | SM2320B-2011 | 1 | 08/14/2025 07:49 | JXK | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 08/11/2025 17:27 | AYS | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/11/2025 10:55 | KMS | C |
| Chloride | 133 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/07/2025 12:31 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/07/2025 12:31 | J1W | A |
| Nitrate-N | 5.0 | | mg/L | 1.0 | EPA 300.0 | 2 | 08/07/2025 12:31 | J1W | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/07/2025 12:31 | J1W | A |
| pH | 8.38 | 4,5 | pH_Units | | S4500HB-11 | 1 | 08/14/2025 07:49 | JXK | A |
| Phenolics | ND | ND,6 | mg/L | 0.005 | EPA 420.4 | 1 | 08/19/2025 15:34 | AKH | J |
| Specific Conductance | 812 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/12/2025 07:45 | MYM | A |
| Sulfate | 19.4 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/07/2025 12:31 | J1W | A |
| Total Dissolved Solids | 462 | | mg/L | 25 | SM2540C-15 | 1 | 08/08/2025 15:20 | RAG | A |
| Total Organic Carbon (TOC) | 0.80 | | mg/L | 0.50 | SM5310B-14 | 1 | 08/13/2025 00:00 | PAG | H |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 08/07/2025 10:25 | AKH | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | Trip Blank | Collected | 08/06/2025 10:20 |
| Lab Sample ID | 3429258002 | Lab Receipt | 08/06/2025 16:40 |

## VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 12:50 | TMP | A |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 12:50 | TMP | A |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 12:50 | TMP | A |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 12:50 | TMP | A |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 12:50 | TMP | A |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 12:50 | TMP | A |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 12:50 | TMP | A |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 12:50 | TMP | A |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 12:50 | TMP | A |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 12:50 | TMP | A |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 12:50 | TMP | A |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 12:50 | TMP | A |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 12:50 | TMP | A |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 12:50 | TMP | A |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 12:50 | TMP | A |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/15/2025 12:50 | TMP | A |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 90.6% | 70 – 130 | 08/15/2025 12:50 | |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | Field Blank | Collected | 08/06/2025 10:25 |
| Lab Sample ID | 3429258003 | Lab Receipt | 08/06/2025 16:40 |

## VOLATILE ORGANICS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | ND,S1 | ug/L | 0.50 | EPA 524.2 | 1 | 08/22/2025 12:05 | TMP | B |
| 1,1-Dichloroethane | ND | ND,S1 | ug/L | 0.50 | EPA 524.2 | 1 | 08/22/2025 12:05 | TMP | B |
| 1,1-Dichloroethene | ND | ND,S1 | ug/L | 0.50 | EPA 524.2 | 1 | 08/22/2025 12:05 | TMP | B |
| 1,2-Dibromoethane | ND | ND,S1 | ug/L | 0.50 | EPA 524.2 | 1 | 08/22/2025 12:05 | TMP | B |
| 1,2-Dichloroethane | ND | ND,S1 | ug/L | 0.50 | EPA 524.2 | 1 | 08/22/2025 12:05 | TMP | B |
| Benzene | ND | ND,S1 | ug/L | 0.50 | EPA 524.2 | 1 | 08/22/2025 12:05 | TMP | B |
| cis-1,2-Dichloroethene | ND | ND,S1 | ug/L | 0.50 | EPA 524.2 | 1 | 08/22/2025 12:05 | TMP | B |
| Ethylbenzene | ND | ND,S1 | ug/L | 0.50 | EPA 524.2 | 1 | 08/22/2025 12:05 | TMP | B |
| Methylene Chloride | ND | ND,S1 | ug/L | 0.50 | EPA 524.2 | 1 | 08/22/2025 12:05 | TMP | B |
| Tetrachloroethene | ND | ND,S1 | ug/L | 0.50 | EPA 524.2 | 1 | 08/22/2025 12:05 | TMP | B |
| Toluene | ND | ND,S1 | ug/L | 0.50 | EPA 524.2 | 1 | 08/22/2025 12:05 | TMP | B |
| Total Xylenes | ND | ND,S1 | ug/L | 0.50 | EPA 524.2 | 1 | 08/22/2025 12:05 | TMP | B |
| trans-1,2-Dichloroethene | ND | ND,S1 | ug/L | 0.50 | EPA 524.2 | 1 | 08/22/2025 12:05 | TMP | B |
| Trichloroethene | ND | ND,S1 | ug/L | 0.50 | EPA 524.2 | 1 | 08/22/2025 12:05 | TMP | B |
| Trichlorofluoromethane | ND | ND,S1 | ug/L | 0.50 | EPA 524.2 | 1 | 08/22/2025 12:05 | TMP | B |
| Vinyl Chloride | ND | ND,S1 | ug/L | 0.50 | EPA 524.2 | 1 | 08/22/2025 12:05 | TMP | B |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 4-Bromofluorobenzene | 460-00-4 | 86.3% | 70 – 130 | 08/22/2025 12:05 | |

## Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3429258001 | 3125 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | Subcontract | N/A | |
| | | EPA 524.2 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | SW846 9066 | |
| | | S4500HB-11 | N/A | |
| | | SM 4500-NH3G | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM2540C-15 | N/A | |
| | | SM5310B-14 | N/A | |
| 3429258002 | Trip Blank | EPA 524.2 | N/A | |
| 3429258003 | Field Blank | EPA 524.2 | N/A | |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|---|---|---|---|---|---|---|---|
| 3429258001 | 3125 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | |
| | | EPA TRMD | 1460813 | 08/15/2025 08:41 | RMH | EPA 200.7 | 1461184 |
| | | EPA ACID | 1460745 | 08/14/2025 17:00 | MSY | EPA 200.7 | 1460830 |
| | | N/A | N/A | N/A | | Subcontract | |
| | | N/A | N/A | N/A | | EPA 524.2 | 1460833 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1458941 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1459875 |
| | | SW846 9066 | 1461233 | 08/18/2025 10:49 | AKH | EPA 420.4 | 1461237 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1460044 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1459876 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1458962 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1460044 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1459883 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1459187 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1459328 |
| 3429258002 | Trip Blank | N/A | N/A | N/A | | EPA 524.2 | 1460833 |
| 3429258003 | Field Blank | N/A | N/A | N/A | | EPA 524.2 | 1462384 |

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

# CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

CO 3429258
Logged By: SLS
PM: SJB
AL
of

**Client Name:** LCSWMA Christian C. Beck

**Address:** 3125 River Rd
Conestoga Pa 17516

**Contact:** Christian C Beck
**Phone#:** 717-871-0448
**Project Name/#:** LCSWMA Quarterly
**Bill To:** LCSWMA
**Purchase Order #:**

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

**Date Required:** **Approved?**
**Email?** [ ]

| Container Type | AG | AN | AN | CG | | P | P | P | P | P |
|---|---|---|---|---|---|---|---|---|---|---|
| Container Size | 40ml | 250ml | 125ml | 40ml | | 250ml | 125ml | 125ml | 1L | 500ml |
| Preservative | HCL | H2SO4 | H2SO4 | ASCHCL | | H2SO4 | HNO3 | HNO3 | UNP | UNP |

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

**ANALYSIS / METHOD REQUESTED**

| | Sample Description/Location (as it will appear on the lab report) | Date Collected mm/dd/yy | Time hh:mm | SDWA Sample Type (see key) | *G or C | **Matrix (See bottom of COC) | TOC | TOX | O-OH | EPA 524.2 Form 52 | FM | NH3-N, COD | Dissolved Metals Ca,Fe,Mg,Mn, K,Na | Metals Ca,Fe,Mg,Mn,K,Na | pH,TDS,NO2,NO3,Cl,SO4,F, SpC,Tb | Alkalinity, HCO3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Enter Number of Containers Per Sample or Field Results Below. | | | | | | | | | |
| 1 | 3125RIVERRD | 8-6-25 | 1020 | | G | DW | 2 | 2 | 1 | 3 | x | 1 | 2 | 2 | 1 | 1 |
| 2 | Trip Blank | 8-6-25 | NA | | G | Di | | | | 2 | | | | | | |
| 3 | Field Blank | 8-6-25 | 1025 | | G | Di | | | | 2 | | | | | | |
| 4 | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |

Temp Taken By: Therm ID: WO Temp (°C)
*Receipt Info completed by:* WV Containers 0-6°C Y N NA

| | | | |
|---|---|---|---|
| Cooler Custody Seals Intact | Y | N | NA |
| Sample Custody Seal Intact | Y | N | NA |
| Received on Ice | Y | N | NA |
| Coolers & Samples Intact | Y | N | |
| Correct Containers Provided | Y | N | |
| Sample Label/COC Agree | Y | N | |
| Adequate Sample Volumes | Y | N | |
| VOA only: Trip Blank | Y | N | NA |

NJ ≤ 4 days? Y N
Courier/Tracking #

Deviations? NO YES
If YES, list below:

**Client contact:**
Date/Tech:

Sample(s) for Radiation testing? Y N
Reportable SDWA Sample(s)? Y N
SDWA State of Origin?
PWSID #

Rad Screen (uCi)
New Source? Y N
New Source Contact:

PWS Contact: PWS Phone #:

**SDWA Sample Type Key:** D=Distribution E=Entry Point
R=Raw P=Plant C=Check S=Special A=Annual Startup

**Sample/COC Remarks**

**Contains Short Hold Testing YES NO**
**Internal Use: If less than 48 hours - notify lab upon receipt**

**Circle Sample Collector: ALS Tech / Client**
**Name:** Evan P **ID:**

**Comments:** PH. 6.91 temp. 20.4°c Spc. 841

| Date: | Time | | Relinquished By / Company Name | | Received By / Company Name |
|---|---|---|---|---|---|
| 8-6-25 | 1640 | 1 | ALS | 2 | |
| | | 3 | | 4 | |
| | | 5 | | 6 | |
| | | 7 | | 8 | |
| | | 9 | | 10 | |

**Data Deliverables**

| | | | |
|---|---|---|---|
| [ ] Standard Lvl 1 | [ ] CLP-like | [ ] HSCA | |
| [ ] Standard Lvl 2 | [ ] DOD | [ ] Landfill | |
| [ ] Standard Lvl 3 | [ ] NJ RED | [ ] NJ GW | |
| [ ] Standard Lvl 4 | [ ] NJ Full | [ ] | |

**EDDs**

[ ] Excel Summary
[ ] Equis
[ ] Custom

**Sample Disposal**
Lab [x]
Special [ ]

**EDDS:** Format Type

**State Samples Collected In**

| | |
|---|---|
| [ ] | NY |
| [ ] | NJ |
| [x] | PA |
| [ ] | WV |
| [ ] | FL |
| | other |

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middletown, PA 17057

Rev 07.06.2023


1569

# Middletown Sample Condition Form

Client LCSWMA Workorder 3429258

Temp °C 1 Therm ID 569 Ice? (Y) N N/A Initials & Date LW 8/28/25

Fedex UPS Client (ALS) Other Tracking # _____

| | Yes | No[1] | N/A | Comments |
|---|---|---|---|---|
| Cooler Custody Seals present & intact | | | X | |
| Sample Custody Seals present & intact | | | X | |
| Chain-of-Custody present | X | | | |
| Sample collector name present<br>*If not present, must contact PM/client to request name.* | X | | | |
| COC/bottle labels complete & in agreement | X | | | |
| •Sample location | X | | | |
| •Date and time of sample collection | X | | | |
| •Type(s) of preservation | X | | | |
| •Number of containers | X | | | |
| •Composite or grab | X | | | |
| •Matrix | X | | | |
| Proper containers, preservation, and volume per method | X | | | |
| Received within hold time | X | | | |
| Containers intact | X | | | |
| Trip blanks present (EPA 504, EPA 524) | X | | | |
| Field blanks present (Hg 1631, PFAS) | | | X | |
| NJ ≤ 4 Days | | | X | |
| CR6 Samples Filtered | | | X | |
| OP Samples Filtered | | | X | |
| WV Containers 0-6°C | | | X | |
| SDWA compliance reporting | | | X | |

[1] *If No, provide comment*

Rad Screen (uCi) _____

PM - PM to contact client
N/A - Not Applicable
UC - Updated coc with missing information

Review Comments:

_____

_____

_____

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Wednesday, August 13, 2025

Susan Scherer
ALS ENVIRONMENTAL
301 FULLING MILL ROAD
MIDDLETOWN, PA 17057

Order No.: G2508490

Dear Susan Scherer:

Geochemical Testing received 1 sample(s) on 8/8/2025 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Joelle Streczywilk
Environmental Laboratory Manager

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

## Geochemical Testing

**Date:** *13-Aug-25*

**CLIENT:** ALS ENVIRONMENTAL
**Project:**
**Lab Order:** G2508490

# CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

**Glossary:**

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative
ND - Not Detected
MCL - Contaminant Limit
J - Indicates an estimated value.
Q - Qualifier
QL -Quantitation Limit
DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

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# Glossary (continued)

1 Spike recovery limits are not applicable when the sample concentration exceeds the spike concentration by a factor of four or greater.

B1 Dilution water blank exceeded method criterion.

C1 CCV recovery above the acceptance limits. Results may be biased high.

C2 CCV recovery below the acceptance limits. Results may be biased low.

C3 ICV recovery above the acceptance limits. Results may be biased high.

C4 ICV recovery below the acceptance limits. Results may be biased low.

D1 The analysis did not meet the minimum DO depletion of at least 2 mg/L.

D2 The analysis did not meet the minimum residual DO of at least 1 mg/L.

D3 Sample required dilution due to a matrix interference.

D4 Sample was diluted in the extraction steps due to marked matrix interferences.

D5 Sample required dilution due to a chloride interference.

D6 Sample was diluted and the reporting limits were raised to achieve method compliant internal standard recovery.

D7 Sample was digested at a dilution due to the formation of a post-digestion precipitate.

D8 Sample was digested at a dilution to achieve method compliant matrix spike recovery.

D9 Sample was digested at a dilution to meet method compliant digestion criteria.

E2 Unable to obtain a stable weight within specified limits due to sample matrix. Value is estimated.

F1 Fecal sample tested positive for residual chlorine.

H1 Due to under-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H2 Due to over-depletion from the initial dilutions for BOD, the sample was reanalyzed outside the hold time.

H3 Sample was re-analyzed outside of hold time due to error during original analysis.

H4 The Nitrite result used to report Nitrate was analyzed past the 48-hour holding time.

I1 Internal standard recovery above method acceptance limits. Results are estimated.

I2 Internal standard recovery was below method acceptance limits. Results are estimated.

IP One of the instrument performance checks ( ) did not meet the acceptance criteria.

L1 LCS above the acceptance limits. Result may be biased high.

L2 LCS below the acceptance limits. Result may be biased low.

L3 Analyte was spiked into the LCS, but was not recovered.

M1 Matrix Spike recovery above the acceptance limits.

M2 Matrix Spike recovery below the acceptance limits.

M4 The matrix spike failed high for the surrogate.

M5 The matrix spike failed low for the surrogate.

M6 The reporting limits were raised due to sample matrix interference.

M7 Recovery for matrix spike could not be quantified due to matrix interference.

M8 Analyte was spiked into the MS, but was not recovered.

M9 Analyte concentration was determined by the method of standard addition (MSA).

N1 The lab does not hold accreditation from PA-DEP for this parameter by this method

N2 PADEP does not accredit labs for this analyte by this method.

N3 The lab is accredited for this method in West Virginia, but not in PA (its primary accrediting body).

N4 PADEP does not accredit labs for this analyte by this method in drinking water.

O1 The flashpoint tester cannot detect below 50 degrees F.

O2 Result is temperature of the sample when flame observed. No flash observed. Result qualified.

O4 Sample was received with headspace.

O5 Sample was received in incorrect container and is not compliant with 40CFR136 Table II.

O6 Insufficient sample volume was received to comply with the method.

P1 The pH of the sample was >2 and is not compliant with 40CFR136 Table II.

P2 Sample contained residual chlorine and is not compliant with 40CFR136 Table II

P3 The pH of the sample was <10 and is not compliant with 40CFR136 Table II.

P4 Field preservation does not meet EPA or method recommendations for this analysis.

P5 Acid preservation may not be appropriate for the analysis of 2-Chloroethylvinyl ether.

P6 Sample required additional preservative upon receipt.

P7 The sample was received unpreserved.

P8 The pH of the sample was < 9 and is not compliant with 40 CFR136 Table II.

Q2 Reported lower result from the dual detector. See case narrative.

Q3 Sample detected multiple Aroclors. See case narrative.

Q4 Weathering or degradation observed for PCBs. See case narrative.

Q5 Positive PCB interference qualified in peak(s) that cannot be removed. See case narrative.

Q6 Peak Height/Area used in quantification is documented in the case narrative.

R Relative Percent Difference (RPD) was above the control limit.

R1 RPD above control limits between matrix spike and MS duplicates

R2 RPD above the control limit between duplicates.

R3 RSD above the control limit between replicates.

R4 RPD above control limits between Inorganic Carbon check and spike.

R5 RPD above control limits between control sample and control sample duplicates.

R6 Dual Column/Detector RDP >40%. Higher result reported.

S2 Surrogate recovery in the blank was below the control limit.

S3 Surrogate recovery in the blank was above the control limit.

S4 Surrogate recovery in the LCS is above the control limit.

S5 Surrogate recovery in the LCS is below the control limit.

SR Analyte recovery was outside the accepted recovery limits and above the control limit for RPD.

TC The MS tune check (tailing factor) did not meet the acceptance criteria.

# Laboratory Results

## Geochemical Testing

**Date:** *13-Aug-25*

| | | | |
|---|---|---|---|
| **CLIENT:** | ALS ENVIRONMENTAL | **Client Sample ID:** | 3429258001 |
| **Lab Order:** | G2508490 | | 3125 River Road, Conestoga, PA |
| **Project:** | | **Sampled By:** | ALS |
| **Lab ID:** | G2508490-001 | **Collection Date:** | 8/6/2025 10:20:00 AM |
| **Matrix:** | AQUEOUS | **Received Date:** | 8/8/2025 12:21:42 PM |

| Analyses | Result | QL | Q | Units | DF | Date Prepared | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **INDICATOR ORGANIC PARAMETERS** | | Analyst: **ACW** | | | | **EPA 9020 B** | **EPA 9020 B** |
| Total Organic Halogen | 146 | 50 | | µg/L | 1 | 08/11/25 5:00 AM | 08/11/25 10:10 AM |

I.D. 56-00306 PA DEP