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| Date Prepared/Revised 10/13/2022 |
| 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 (D ^o 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: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: ft./MSL |
| Total Well Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Sampling Depth: | ft. Well Volumes Purged: |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 08/05/2022 Sample Collection Time: 2:41 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 | 08/26/2022 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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

08/05/2022

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 | 16.3 | EPA 200.7 |
| CALCIUM, DISSOLVED | 16.5 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 17.3 | 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 | 10.3 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 10.1 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 13 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 12 | EPA 200.7 |
| NITRATE-NITROGEN | 18.3 E | EPA 300 |

T Please indicate detection limit if analyte is not detected.

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PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

08/05/2022

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) | 6.24 | FIELD |
| pH-LAB (SU) | 6.87 | SM4500B |
| POTASSIUM, TOTAL | 1.9 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 1.9 | EPA 200.7 |
| SODIUM, TOTAL | 8.6 | EPA 200.7 |
| SODIUM, DISSOLVED | 8.6 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 237 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 260 | EPA 120.1 |
| SULFATE | 2 ND | EPA 300 |
| ALKALINITY | 16 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 201 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.3 ND | SM 2130B |

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PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

08/05/2022

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 |

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| Date Prepared/Revised 10/13/2022 |
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**FORM 52
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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 (D ^o 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: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: ft./MSL |
| Total Well Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Sampling Depth: | ft. Well Volumes Purged: |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 08/05/2022 Sample Collection Time: 2:28 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 | 08/26/2022 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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

08/05/2022

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 | 17 | EPA 200.7 |
| CALCIUM, DISSOLVED | 16.7 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 17.9 | 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 | 8.6 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 8.4 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 26 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 25 | EPA 200.7 |
| NITRATE-NITROGEN | 17.2 E | EPA 300 |

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101389

Monitoring Point I.D. No.

PS MILLER

Sample Date

08/05/2022

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) | 6.21 | FIELD |
| pH-LAB (SU) | 6.53 | SM4500B |
| POTASSIUM, TOTAL | 1.8 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 1.8 | EPA 200.7 |
| SODIUM, TOTAL | 7.7 | EPA 200.7 |
| SODIUM, DISSOLVED | 7.7 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 248 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 246 | EPA 120.1 |
| SULFATE | 2 ND | EPA 300 |
| ALKALINITY | 8 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 191 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.54 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.3 ND | SM 2130B |

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PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS MILLER

Sample Date

08/05/2022

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 |

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| General Reference: Act 101 Section 1103 | |
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| 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 (D ^o 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: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: ft./MSL |
| Total Well Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Sampling Depth: | ft. Well Volumes Purged: |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 08/05/2022 Sample Collection Time: 2:20 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 | 08/26/2022 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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

08/05/2022

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 14 | SM20-2321 |
| CALCIUM, TOTAL | 10.7 | EPA 200.7 |
| CALCIUM, DISSOLVED | 10.2 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 22.7 | 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 | 11.5 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 92 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 88 | EPA 200.7 |
| NITRATE-NITROGEN | 14.6 E | EPA 300 |

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Facility I.D. Number

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PS LCSWMA

Sample Date

08/05/2022

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) | 5.99 | FIELD |
| pH-LAB (SU) | 6.77 | SM4500B |
| POTASSIUM, TOTAL | 2.1 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 2.1 | EPA 200.7 |
| SODIUM, TOTAL | 8.3 | EPA 200.7 |
| SODIUM, DISSOLVED | 8.1 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 250 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 239 | EPA 120.1 |
| SULFATE | 2 ND | EPA 300 |
| ALKALINITY | 14 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 170 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 | EPA 420.4 |
| TURBIDITY (NTU) | 0.83 | SM 2130B |

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PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

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PS LCSWMA

Sample Date

08/05/2022

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 |

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| 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 (D ^o 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: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: ft./MSL |
| Total Well Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Sampling Depth: | ft. Well Volumes Purged: |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 08/05/2022 Sample Collection Time: 2:10 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 | 08/26/2022 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please explain in comments field. |
| Comments: | |

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PRIVATE WATER SUPPLY
QUARTERLY WATER QUALITY ANALYSES

Facility I.D. Number

101389

Monitoring Point I.D. No.

PS LCSWMA

Sample Date

08/05/2022

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 15 | SM20-2321 |
| CALCIUM, TOTAL | 10.9 | EPA 200.7 |
| CALCIUM, DISSOLVED | 10.6 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 17.6 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 45 | EPA 200.7 |
| IRON, DISSOLVED (ug/l) | 60 ND | EPA 200.7 |
| MAGNESIUM, TOTAL | 11.1 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 10.8 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 110 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 49 | EPA 200.7 |
| NITRATE-NITROGEN | 14.4 E | EPA 300 |

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101389

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PS LCSWMA

Sample Date

08/05/2022

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) | 5.17 | FIELD |
| pH-LAB (SU) | 6.45 | SM4500B |
| POTASSIUM, TOTAL | 2.4 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 2.5 | EPA 200.7 |
| SODIUM, TOTAL | 8 | EPA 200.7 |
| SODIUM, DISSOLVED | 7.9 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 241 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 251 | EPA 120.1 |
| SULFATE | 8.8 | EPA 300 |
| ALKALINITY | 15 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 163 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 6 | EPA 420.4 |
| TURBIDITY (NTU) | 1.8 | SM 2130B |

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Sample Date

08/05/2022

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.



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| Date Prepared/Revised 10/13/2022 |
| 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 (D ^o 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: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: ft./MSL |
| Total Well Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Sampling Depth: | ft. Well Volumes Purged: |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 08/05/2022 Sample Collection Time: 2:00 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 | 08/26/2022 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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

08/05/2022

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 14 | SM20-2321 |
| CALCIUM, TOTAL | 13.9 | EPA 200.7 |
| CALCIUM, DISSOLVED | 13.5 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 51.2 | 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 | 8.6 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 8.3 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 180 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 170 | EPA 200.7 |
| NITRATE-NITROGEN | 8.4 | 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

08/05/2022

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) | 6.59 | SM4500B |
| POTASSIUM, TOTAL | 3.3 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 3.4 | EPA 200.7 |
| SODIUM, TOTAL | 23.9 | EPA 200.7 |
| SODIUM, DISSOLVED | 23.7 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 308 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 320 | EPA 120.1 |
| SULFATE | 10.8 | EPA 300 |
| ALKALINITY | 13 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 186 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.42 | 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

08/05/2022

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.



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| Date Prepared/Revised 10/13/2022 |
| 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 (D ^o 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: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: ft./MSL |
| Total Well Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Sampling Depth: | ft. Well Volumes Purged: |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 08/05/2022 Sample Collection Time: 3:00 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 | 08/26/2022 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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

08/05/2022

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 27 | SM20-2321 |
| CALCIUM, TOTAL | 11 | EPA 200.7 |
| CALCIUM, DISSOLVED | 10.5 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 35.5 | 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 | 5.9 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 5.7 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 34 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 33 | EPA 200.7 |
| NITRATE-NITROGEN | 1 ND | 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

08/05/2022

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) | 6.19 | FIELD |
| pH-LAB (SU) | 6.94 | SM4500B |
| POTASSIUM, TOTAL | 1.9 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 1.9 | EPA 200.7 |
| SODIUM, TOTAL | 12.8 | EPA 200.7 |
| SODIUM, DISSOLVED | 12.5 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 224 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 202 | EPA 120.1 |
| SULFATE | 6.4 | EPA 300 |
| ALKALINITY | 27 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 118 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 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 LCSWMA

Sample Date

08/05/2022

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.


 Date Prepared/Revised
 10/13/2022

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 (D^o 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: 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 No

Well Volumes Purged: _____

 Sample Field Filtered (must be 0.45 micron): Yes No

Sample Date:(mm/dd/yy) 08/05/2022

Sample Collection Time: 1:51 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 08/26/2022

 Were any holding times exceeded?: Yes 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

08/05/2022

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 195 | SM20-2321 |
| CALCIUM, TOTAL | 0.17 | EPA 200.7 |
| CALCIUM, DISSOLVED | 0.16 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 244 | 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 | 0.066 | 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 | 7.9 | 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

08/05/2022

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) | 7.59 | FIELD |
| pH-LAB (SU) | 8.18 | SM4500B |
| POTASSIUM, TOTAL | 3 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 2.9 | EPA 200.7 |
| SODIUM, TOTAL | 235 | EPA 200.7 |
| SODIUM, DISSOLVED | 234 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 947 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 1290 | EPA 120.1 |
| SULFATE | 2 ND | EPA 300 |
| ALKALINITY | 195 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 670 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 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 WEBER

Sample Date

08/05/2022

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.


 Date Prepared/Revised
 10/13/2022

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 (D^o 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: 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 No

Well Volumes Purged: _____

 Sample Field Filtered (must be 0.45 micron): Yes No

Sample Date:(mm/dd/yy) 08/05/2022

Sample Collection Time: 1:41 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 08/26/2022

 Were any holding times exceeded?: _____ Yes 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

08/05/2022

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 26 | SM20-2321 |
| CALCIUM, TOTAL | 14.3 | EPA 200.7 |
| CALCIUM, DISSOLVED | 14.1 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 46.9 | 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 | 5.7 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 5.7 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 13 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 13 | EPA 200.7 |
| NITRATE-NITROGEN | 1 ND | 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

08/05/2022

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) | 6.2 | FIELD |
| pH-LAB (SU) | 7.01 | SM4500B |
| POTASSIUM, TOTAL | 1.4 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 1.5 | EPA 200.7 |
| SODIUM, TOTAL | 14.3 | EPA 200.7 |
| SODIUM, DISSOLVED | 14.4 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 243 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 230 | EPA 120.1 |
| SULFATE | 11.9 | EPA 300 |
| ALKALINITY | 26 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 135 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | EPA 420.4 |
| TURBIDITY (NTU) | 0.81 | 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

08/05/2022

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.



Date Prepared/Revised
10/13/2022

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 (D^o 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: 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 No

Well Volumes Purged: _____

Sample Field Filtered (must be 0.45 micron): Yes No

Sample Date:(mm/dd/yy) 08/05/2022

Sample Collection Time: 1:30 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 08/26/2022

Were any holding times exceeded?: Yes 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

08/05/2022

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 60 | SM20-2321 |
| CALCIUM, TOTAL | 39 | EPA 200.7 |
| CALCIUM, DISSOLVED | 38.1 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 93.2 | 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 | 14.1 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 14.2 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 38 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 38 | EPA 200.7 |
| NITRATE-NITROGEN | 12.7 E | 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

08/05/2022

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) | 6.24 | FIELD |
| pH-LAB (SU) | 7.41 | SM4500B |
| POTASSIUM, TOTAL | 2.1 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 2.1 | EPA 200.7 |
| SODIUM, TOTAL | 38.3 | EPA 200.7 |
| SODIUM, DISSOLVED | 37.6 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 347 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 584 | EPA 120.1 |
| SULFATE | 7.7 | EPA 300 |
| ALKALINITY | 60 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 310 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.68 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 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

08/05/2022

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.



| |
|-------------------------------------|
| Date Prepared/Revised 10/13/2022 |
| 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 (D ^o 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: <input checked="" type="checkbox"/> Land Surface <input type="checkbox"/> TOC |
| Casing Stick Up: | ft. Elevation of Water Level: ft./MSL |
| Total Well Depth: | ft. Sampling Method: <input type="checkbox"/> Pumped <input type="checkbox"/> Bailed |
| Sampling Depth: | ft. Well Volumes Purged: _____ |
| Well Purged: | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Sample Field Filtered (must be 0.45 micron)?: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Sample Date:(mm/dd/yy) | 08/05/2022 Sample Collection Time: 1:15 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 | 08/26/2022 |
| Were any holding times exceeded?: | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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

08/05/2022

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

| PARAMETER | VALUE | ANALYSIS METHOD NUMBER |
|------------------------------|--------|------------------------|
| AMMONIA-NITROGEN | 0.1 ND | SM4500D |
| BICARBONATE ALKALINITY | 178 | SM20-2321 |
| CALCIUM, TOTAL | 8.3 | EPA 200.7 |
| CALCIUM, DISSOLVED | 8.2 | EPA 200.7 |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.2 |
| CHLORIDE | 91.8 | 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 | 0.93 | EPA 200.7 |
| MAGNESIUM, DISSOLVED | 0.95 | EPA 200.7 |
| MANGANESE, TOTAL (ug/l) | 3.8 | EPA 200.7 |
| MANGANESE, DISSOLVED (ug/l) | 5 ND | EPA 200.7 |
| NITRATE-NITROGEN | 4.7 | 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

08/05/2022

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) | 7.63 | FIELD |
| pH-LAB (SU) | 8.04 | SM4500B |
| POTASSIUM, TOTAL | 4 | EPA 200.7 |
| POTASSIUM, DISSOLVED | 3.9 | EPA 200.7 |
| SODIUM, TOTAL | 135 | EPA 200.7 |
| SODIUM, DISSOLVED | 137 | EPA 200.7 |
| SPEC. COND., FIELD (umhos/cm) | 694 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 710 | EPA 120.1 |
| SULFATE | 11.7 | EPA 300 |
| ALKALINITY | 178 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 366 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.75 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 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

08/05/2022

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.



301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

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

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 3rd QTR 2022-3044 RIVER RD
Workorder 3256978
Report ID 190617 on 8/29/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 05, 2022.

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):
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jordan Gallagher - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

Susan Scherer
Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|--------------------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3256978001 | 3044 River Road, Conestoga, PA | Water | 08/05/2022 14:41 | 08/05/2022 17:15 | BGS | Analytical Laboratory Service |



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.
- 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 performed 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 | Reporting Detection Limit |
| 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.

| | |
|---|---|
| E | Result reported exceeds instrument calibration |
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 2 | This sample was reran out of hold within the instrument's calibration range, for the analyte Nitrate-N, and confirms the initial in-hold reported result. |
| 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 420.4/9066 was outside the control limits for the analyte Phenolics. The % Recovery was reported as 161 and the control limits were 90 to 110. |



Detected Results Summary

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3044 River Road, Conestoga, PA | Collected | 08/05/2022 14:41 |
| Lab Sample ID | 3256978001 | Lab Receipt | 08/05/2022 17:15 |

| Compound | Result | Units | RDL | Method | Flag |
|-----------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 6.24 | pH_Units | | Field | # |
| Specific Conductance, Field | 237 | umhos/cm | 1 | Field | # |
| Temperature | 15.00 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 16.5 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 16.3 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 10.1 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 10.3 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.012 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.013 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 1.9 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 1.9 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 8.6 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 8.6 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 16 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 16 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 17.3 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 18.3 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.87 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 260 | umhos/cm | 5 | SM2510B-2011 | # |
| Total Dissolved Solids | 201 | mg/L | 25 | S2540C-11 | # |



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3044 River Road, Conestoga, PA | Collected | 08/05/2022 14:41 |
| Lab Sample ID | 3256978001 | Lab Receipt | 08/05/2022 17:15 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 6.24 | | pH_Units | | Field | 1 | 08/05/2022 14:41 | BGS | M |
| Specific Conductance, Field | 237 | | umhos/cm | 1 | Field | 1 | 08/05/2022 14:41 | BGS | M |
| Temperature | 15.00 | | Deg. C | | Field | 1 | 08/05/2022 14:41 | BGS | M |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 16.5 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 17:01 | SRT | E1 |
| Calcium, Total | 16.3 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/24/2022 14:04 | SRT | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/24/2022 17:01 | SRT | E1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/24/2022 14:04 | SRT | D1 |
| Magnesium, Dissolved | 10.1 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 17:01 | SRT | E1 |
| Magnesium, Total | 10.3 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/24/2022 14:04 | SRT | D1 |
| Manganese, Dissolved | 0.012 | | mg/L | 0.0050 | EPA 200.7 | 1 | 08/24/2022 17:01 | SRT | E1 |
| Manganese, Total | 0.013 | | mg/L | 0.0025 | EPA 200.7 | 1 | 08/24/2022 14:04 | SRT | D1 |
| Potassium, Dissolved | 1.9 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 17:01 | SRT | E1 |
| Potassium, Total | 1.9 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/24/2022 14:04 | SRT | D1 |
| Sodium, Dissolved | 8.6 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 17:01 | SRT | E1 |
| Sodium, Total | 8.6 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/24/2022 14:04 | SRT | D1 |

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 | 08/13/2022 19:42 | TMP | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:42 | TMP | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:42 | TMP | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:42 | TMP | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:42 | TMP | J |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:42 | TMP | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:42 | TMP | J |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:42 | TMP | J |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:42 | TMP | J |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:42 | TMP | J |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:42 | TMP | J |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:42 | TMP | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:42 | TMP | J |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:42 | TMP | J |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:42 | TMP | J |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:42 | TMP | J |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 90.5% | 70 - 130 | 08/13/2022 19:42 | |

WET CHEMISTRY



Results

| Client Sample ID | 3044 River Road, Conestoga, PA | | | | Collected | 08/05/2022 14:41 | | | | |
|------------------------------|--------------------------------|------|----------|-------|------------------|------------------|--------------------|-----|------|--|
| Lab Sample ID | 3256978001 | | | | Lab Receipt | 08/05/2022 17:15 | | | | |
| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr | |
| Alkalinity, Bicarbonate | 16 | | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 04:57 | BXD | A | |
| Alkalinity, Total | 16 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 04:57 | BXD | A | |
| Ammonia-N | ND | ND | mg/L | 0.100 | ASTM D6919-09 | 10 | 08/10/2022 21:08 | NML | C | |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/10/2022 14:47 | KMS | C | |
| Chloride | 17.3 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 18:13 | M1D | A | |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/06/2022 18:13 | M1D | A | |
| Halogen, Total Organic (TOX) | ND | ND | ug/L | 20.0 | SW846 9020B | 1 | 08/09/2022 17:46 | PAG | I | |
| Nitrate-N | 18.3 | E,2 | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 18:13 | M1D | A | |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 18:13 | M1D | A | |
| pH | 6.87 | 3 | pH_Units | | S4500HB-11 | 1 | 08/17/2022 04:57 | BXD | A | |
| Phenolics | ND | ND,4 | mg/L | 0.004 | EPA 420.4 | 1 | 08/11/2022 13:17 | AKH | H | |
| Specific Conductance | 260 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/26/2022 16:49 | BXD | A | |
| Sulfate | ND | ND | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 18:13 | M1D | A | |
| Total Dissolved Solids | 201 | | mg/L | 25 | S2540C-11 | 1 | 08/10/2022 08:57 | SMS | A | |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-2011 | 1 | 08/10/2022 04:28 | PAG | F | |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 08/06/2022 04:52 | LXZ | A | |



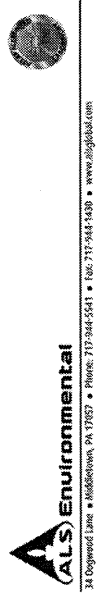
Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|--------------------------------|-----------------|--------------------|-----------------|
| 3256978001 | 3044 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 524.2 | N/A | |
| | | ASTM D6919-09 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | 420.4/9066 | |
| | | S2540C-11 | N/A | |
| | | S4500HB-11 | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM5310B-2011 | N/A | |
| | | SW846 9020B | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|--------------------------------|--------------------|------------|------------------|-----|-----------------|------------|
| 3256978001 | 3044 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | 869647 |
| | | EPA TRMD | 871056 | 08/14/2022 23:24 | ANN | EPA 200.7 | 873748 |
| | | EPA ACID | 873735 | 08/24/2022 14:57 | MO | EPA 200.7 | 873736 |
| | | N/A | N/A | N/A | | EPA 524.2 | 870954 |
| | | N/A | N/A | N/A | | ASTM D6919-09 | 870053 |
| | | N/A | N/A | N/A | | EPA 300.0 | 869566 |
| | | N/A | N/A | N/A | | EPA 410.4 | 870085 |
| | | 420.4/9066 | 870191 | 08/10/2022 15:34 | AKH | EPA 420.4 | 870370 |
| | | N/A | N/A | N/A | | S2540C-11 | 869805 |
| | | N/A | N/A | N/A | | S4500HB-11 | 871363 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 869454 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 871363 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 874172 |
| | | N/A | N/A | N/A | | SM5310B-2011 | 869936 |
| | | N/A | N/A | N/A | | SW846 9020B | 869867 |



Generated by ALS

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

COC # **3256978** of **1**
 Logged By: AWF
 PM: SJB

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

301 Folling Mill Road • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

Client Name: Lancaster County Solid Waste MA
Address: 1299 Harrisburg Pke, P.O. Box 4424
 Lancaster, PA 17604

Contact: Dan Brown
Phone#: (717) 735-0193
Project Name#: LCSWMA - Quarterly
Bill To: Lancaster County Solid Waste MA

TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
Date Required: _____ **Approved By:** _____
Email? -Y -N
Fax? -Y -N

| Container Type | AG | AN | AN | CG | PL | PL | PL | PL | PL |
|----------------|-------|--------|--------|---------|--------|--------|--------|--------|--------|
| Container Size | 40 ml | 125 ml | 250 ml | 40 ml | 250 ml | 125 ml | 125 ml | 500 ml | 500 ml |
| Preservative | HCl | H2SO4 | H2SO4 | Asc&HCl | H2SO4 | HNO3 | HNO3 | None | None |

| ANALYSES/METHOD REQUESTED | | | | | | | | | | |
|---------------------------|------|-----|----------|----|------------|---|-------------------------------|--|------------------|-----|
| TOC | O-OH | TOX | 524 VOCs | 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, Pb, Spc | Alkalinity, HCO3 | Col |

Enter Number of Containers Per Sample or Field Results Below.

| Sample Description/Location | Sample Date | Time | *G or C | **Matrix | TOC | O-OH | TOX | 524 VOCs | 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, Pb, Spc | Alkalinity, HCO3 | Col |
|-----------------------------|-------------|------|---------|----------|-----|------|-----|----------|----|------------|---|-------------------------------|--|------------------|-----|
| 1. 3044RIVERRD | 08/05/22 | 1441 | G DW | DW | 2 | 1 | 2 | 3 | X | 1 | 1 | 1 | 1 | 1 | 1 |
| 2. Trip Blank | 08/05/22 | 1715 | G DW | DW | | | | 2 | | | | | | | |
| 3 | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | |

Project Comments:
 Relinquished By / Company Name: *[Signature]* Date: 8-5-22 Time: 1718
 LOGGED BY (signature): _____ DATE: _____
 REVIEWED BY (signature): _____ DATE: _____

| Date | Time | Received By / Company Name | Date | Time |
|--------|------|----------------------------|------|------|
| 8-5-22 | 1718 | <i>[Signature]</i> | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

cooler temp: _____ **Therm ID:** _____
 initial

Temp Taken By: AWF
 WO Temp (°C): 5.70
 Therm ID: _____
 Receipt Info Completed By: *[Signature]*
 Cooler Custody Seal Intact: Y N
 Sample Custody Seal Intact: Y N
 Received on Ice: Y N
 Cooler & Samples Intact: Y N
 Correct Containers Provided: Y N
 Sample Label/COC Agree: Y N
 Adequate Sample Volumes: Y N
 VOA Headspace Present: Y N
 Voa Trip Blank: Y N
 NIS 4 Days?: Y N
 Rad Screen (uCi): Y N
 Courier/Tracking#: _____

SDWA Compliance: Y N
 PWSID: Y N
 WV Containers 0-6°C: Y N

ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other:

| Standard | Special Processing | State Samples Collected In |
|-----------------------------------|--------------------------------|--|
| <input type="checkbox"/> CLP-like | USACE <input type="checkbox"/> | NY <input type="checkbox"/> |
| <input type="checkbox"/> USACE | Navy <input type="checkbox"/> | NJ <input type="checkbox"/> |
| <input type="checkbox"/> | | PA <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | | NC <input type="checkbox"/> |

Reportable to PADEP? Yes No
 PWSID # _____
 EDSS: Format Type: _____
 * G=Grab; C=Composite **Matrix - A=Air; DW=Drinking Water; GW=Groundwater; O=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater



301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

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

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 3RD QTR 2022 3052 RIVER RD
Workorder 3256977
Report ID 190621 on 8/29/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 05, 2022.

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):
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jordan Gallagher - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

Susan Scherer
Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|--------------------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3256977001 | 3052 River Road, Conestoga, PA | Water | 08/05/2022 14:28 | 08/05/2022 17:15 | BGS | Analytical Laboratory Service |



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.
- 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 performed 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 | Reporting Detection Limit |
| 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.

| | |
|---|---|
| E | Result reported exceeds instrument calibration |
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 2 | This sample was reran out of hold within the instrument's calibration range, for the analyte Nitrate-N, and confirms the initial in-hold reported result. |
| 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. |



Detected Results Summary

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3052 River Road, Conestoga, PA | Collected | 08/05/2022 14:28 |
| Lab Sample ID | 3256977001 | Lab Receipt | 08/05/2022 17:15 |

| Compound | Result | Units | RDL | Method | Flag |
|-----------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 6.21 | pH_Units | | Field | # |
| Specific Conductance, Field | 248 | umhos/cm | 1 | Field | # |
| Temperature | 15.40 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 16.7 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 17.0 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 8.4 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 8.6 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.025 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.026 | 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 | 7.7 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 7.7 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 8 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 8 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 17.9 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 17.2 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.53 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 246 | umhos/cm | 5 | SM2510B-2011 | # |
| Total Dissolved Solids | 191 | mg/L | 25 | S2540C-11 | # |
| Total Organic Carbon (TOC) | 0.54 | mg/L | 0.50 | SM5310B-2011 | # |



Results

Client Sample ID 3052 River Road, Conestoga, PA
 Lab Sample ID 3256977001

Collected 08/05/2022 14:28
 Lab Receipt 08/05/2022 17:15

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 6.21 | | pH_Units | | Field | 1 | 08/05/2022 14:28 | BGS | M |
| Specific Conductance, Field | 248 | | umhos/cm | 1 | Field | 1 | 08/05/2022 14:28 | BGS | M |
| Temperature | 15.40 | | Deg. C | | Field | 1 | 08/05/2022 14:28 | BGS | M |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 16.7 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 16:57 | SRT | E1 |
| Calcium, Total | 17.0 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/24/2022 14:01 | SRT | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/24/2022 16:57 | SRT | E1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/24/2022 14:01 | SRT | D1 |
| Magnesium, Dissolved | 8.4 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 16:57 | SRT | E1 |
| Magnesium, Total | 8.6 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/24/2022 14:01 | SRT | D1 |
| Manganese, Dissolved | 0.025 | | mg/L | 0.0050 | EPA 200.7 | 1 | 08/24/2022 16:57 | SRT | E1 |
| Manganese, Total | 0.026 | | mg/L | 0.0025 | EPA 200.7 | 1 | 08/24/2022 14:01 | SRT | D1 |
| Potassium, Dissolved | 1.8 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 16:57 | SRT | E1 |
| Potassium, Total | 1.8 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/24/2022 14:01 | SRT | D1 |
| Sodium, Dissolved | 7.7 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 16:57 | SRT | E1 |
| Sodium, Total | 7.7 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/24/2022 14:01 | SRT | D1 |

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 | 08/13/2022 19:16 | TMP | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:16 | TMP | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:16 | TMP | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:16 | TMP | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:16 | TMP | J |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:16 | TMP | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:16 | TMP | J |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:16 | TMP | J |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:16 | TMP | J |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:16 | TMP | J |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:16 | TMP | J |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:16 | TMP | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:16 | TMP | J |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:16 | TMP | J |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:16 | TMP | J |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 19:16 | TMP | J |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 91% | 70 - 130 | 08/13/2022 19:16 | |

WET CHEMISTRY



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3052 River Road, Conestoga, PA | Collected | 08/05/2022 14:28 |
| Lab Sample ID | 3256977001 | Lab Receipt | 08/05/2022 17:15 |

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|--------|------|----------|-------|------------------|----------|--------------------|-----|------|
| Alkalinity, Bicarbonate | 8 | | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 04:46 | BXD | A |
| Alkalinity, Total | 8 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 04:46 | BXD | A |
| Ammonia-N | ND | ND | mg/L | 0.100 | ASTM D6919-09 | 10 | 08/11/2022 10:36 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/10/2022 14:47 | KMS | C |
| Chloride | 17.9 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 18:02 | M1D | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/06/2022 18:02 | M1D | A |
| Halogen, Total Organic (TOX) | ND | ND | ug/L | 20.0 | SW846 9020B | 1 | 08/08/2022 18:00 | PAG | I |
| Nitrate-N | 17.2 | E,2 | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 18:02 | M1D | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 18:02 | M1D | A |
| pH | 6.53 | 3 | pH_Units | | S4500HB-11 | 1 | 08/17/2022 04:46 | BXD | A |
| Phenolics | ND | ND | mg/L | 0.004 | EPA 420.4 | 1 | 08/23/2022 11:53 | AKH | H |
| Specific Conductance | 246 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/26/2022 16:49 | BXD | A |
| Sulfate | ND | ND | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 18:02 | M1D | A |
| Total Dissolved Solids | 191 | | mg/L | 25 | S2540C-11 | 1 | 08/10/2022 08:57 | SMS | A |
| Total Organic Carbon (TOC) | 0.54 | | mg/L | 0.50 | SM5310B-2011 | 1 | 08/10/2022 04:28 | PAG | F |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 08/06/2022 04:41 | LXZ | A |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|--------------------------------|-----------------|--------------------|-----------------|
| 3256977001 | 3052 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 524.2 | N/A | |
| | | ASTM D6919-09 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | 420.4/9066 | |
| | | S2540C-11 | N/A | |
| | | S4500HB-11 | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM5310B-2011 | N/A | |
| | | SW846 9020B | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|--------------------------------|--------------------|------------|------------------|-----|-----------------|------------|
| 3256977001 | 3052 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | 869647 |
| | | EPA TRMD | 871056 | 08/14/2022 23:24 | ANN | EPA 200.7 | 873748 |
| | | EPA ACID | 873735 | 08/24/2022 14:57 | MO | EPA 200.7 | 873736 |
| | | N/A | N/A | N/A | | EPA 524.2 | 870954 |
| | | N/A | N/A | N/A | | ASTM D6919-09 | 870060 |
| | | N/A | N/A | N/A | | EPA 300.0 | 869566 |
| | | N/A | N/A | N/A | | EPA 410.4 | 870085 |
| | | 420.4/9066 | 870188 | 08/10/2022 15:34 | AKH | EPA 420.4 | 873239 |
| | | N/A | N/A | N/A | | S2540C-11 | 869805 |
| | | N/A | N/A | N/A | | S4500HB-11 | 871363 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 869453 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 871363 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 874172 |
| | | N/A | N/A | N/A | | SM5310B-2011 | 869936 |
| | | N/A | N/A | N/A | | SW846 9020B | 869681 |



**CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS**
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /
SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: **3256977**
ALS QU
Generated by ALS
Logged By: AWF
PM: SJB

301 Filling Mill Road • Middletown, PA 17057 • Fax: 717.944.5541 • Fax: 717.944.1430

Client Name: LCSWMA - Gerald E. Miller, Sr.
Address: 3052 River Road
Conestoga, PA 17516
Contact: Gerald E. Miller, Sr.
Phone#: (717) 872-5117
Project Name#: LCSWMA - Quarterly
Bill To: Lancaster County Solid Waste MA

TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
Date Required: _____ Approved By: _____
Email? -Y -N
Fax? -Y -N

| Container Type | AG | AN | AN | CG | PL | PL | PL | PL | PL | PL | F |
|----------------|-------|--------|--------|---------|--------|--------|--------|--------|--------|--------|-----|
| Container Size | 40 ml | 125 ml | 250 ml | 40 ml | 250 ml | 125 ml | 125 ml | 125 ml | 500 ml | 500 ml | F |
| Preservative | HCl | H2SO4 | H2SO4 | Asc&HCl | H2SO4 | HNO3 | HNO3 | HNO3 | None | None | No. |

ANALYSES/METHOD REQUESTED

| Matrix | TOC | O-OH | TOX | 524 VOCs | 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, Tb, SpC | Alkalinity, HCO3 |
|--------|-----|------|-----|----------|----|------------|---|-------------------------------|--|------------------|
| G or C | 2 | 1 | 2 | 3 | X | 1 | 1 | 1 | 1 | 1 |
| DW | 2 | | | 2 | | | | | | |

Enter Number of Containers Per Sample or Field Results Below.

| Sample Description/Location (as it will appear on the lab report) | Sample Date | Time |
|---|-------------|------|
| 1. 3052RIVERRD | 08/05/22 | 1428 |
| 2. Trip Blank | 08/05/22 | 1745 |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

Temp Taken By: AWF
WO Temp (°C): 0
Therm ID: 570
Receipt Info Completed By: EJC
Cooler Custody Seal Intact: Y N N NA
Sample Custody Seal Intact: Y N N NA
Received on Ice: Y N N NA
Cooler & Samples Intact: Y N N NA
Correct Containers Provided: Y N N NA
Sample Label/COC Agree: Y N N NA
Adequate Sample Volumes: Y N N NA
VOA Headspace Present: Y N N NA
Voa Trip Blank: Y N N NA
NJS: 4 Days? Y N N NA
Rad Screen (uCi): Y N N NA
Courier/Tracking #: _____
SDWA Compliance: Y N N NA
PWSID: Y N N NA
WV Containers 0-6°C: Y N N NA

ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other: _____

LOGGED BY (signature): _____
REVIEWED BY (signature): _____

| Relinquished By / Company Name | Date | Time | Received By / Company Name | Date | Time |
|--------------------------------|----------|------|----------------------------|------|------|
| <i>[Signature]</i> | 08/05/22 | 1745 | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Standard CLP-like USACE
Deliverables USACE
Special Processing USACE Navy
State Samples Collected In NY NJ PA NC
Reportable to PADEP? Yes No
Sample Disposal Lab Special
PWSID # _____
EDDS: Format Type- _____

* G=Grab; C=Composite
**Matrix - A=Air; DW=Drinking Water; GW=Groundwater; O=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Mastewater



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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

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 3RD QTR 2022 3056 RIVER RD
Workorder 3256976
Report ID 190642 on 8/29/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 05, 2022.

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):
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jordan Gallagher - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

Susan Scherer
Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3256976001 | 3056RIVERRD | Water | 08/05/2022 14:20 | 08/05/2022 17:15 | BGS | Analytical Laboratory Service |



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.
- 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 performed 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 | Reporting Detection Limit |
| 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.

| | |
|---|---|
| E | Result reported exceeds instrument calibration |
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 2 | This sample was reran out of hold within the instrument's calibration range, for the analyte Nitrate-N, and confirms the initial in-hold reported result. |
| 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. |



Detected Results Summary

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | 3056RIVERRD | Collected | 08/05/2022 14:20 |
| Lab Sample ID | 3256976001 | Lab Receipt | 08/05/2022 17:15 |

| Compound | Result | Units | RDL | Method | Flag |
|-----------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 5.99 | pH_Units | | Field | # |
| Specific Conductance, Field | 250 | umhos/cm | 1 | Field | # |
| Temperature | 15.70 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 10.2 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 10.7 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 11.5 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 12.0 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.088 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.092 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 2.1 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 2.1 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 8.1 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 8.3 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 14 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 14 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 22.7 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 14.6 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.77 | pH_Units | | S4500HB-11 | # |
| Phenolics | 0.004 | mg/L | 0.004 | EPA 420.4 | # |
| Specific Conductance | 239 | umhos/cm | 5 | SM2510B-2011 | # |
| Total Dissolved Solids | 170 | mg/L | 25 | S2540C-11 | # |
| Turbidity | 0.83 | NTU | 0.30 | SM2130B-2011 | # |



Results

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | 3056RIVERRD | Collected | 08/05/2022 14:20 |
| Lab Sample ID | 3256976001 | Lab Receipt | 08/05/2022 17:15 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 5.99 | | pH_Units | | Field | 1 | 08/05/2022 14:20 | BGS | M |
| Specific Conductance, Field | 250 | | umhos/cm | 1 | Field | 1 | 08/05/2022 14:20 | BGS | M |
| Temperature | 15.70 | | Deg. C | | Field | 1 | 08/05/2022 14:20 | BGS | M |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 10.2 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 16:54 | SRT | E1 |
| Calcium, Total | 10.7 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/24/2022 13:48 | SRT | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/24/2022 16:54 | SRT | E1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/24/2022 13:48 | SRT | D1 |
| Magnesium, Dissolved | 11.5 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 16:54 | SRT | E1 |
| Magnesium, Total | 12.0 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/24/2022 13:48 | SRT | D1 |
| Manganese, Dissolved | 0.088 | | mg/L | 0.0050 | EPA 200.7 | 1 | 08/24/2022 16:54 | SRT | E1 |
| Manganese, Total | 0.092 | | mg/L | 0.0025 | EPA 200.7 | 1 | 08/24/2022 13:48 | SRT | D1 |
| Potassium, Dissolved | 2.1 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 16:54 | SRT | E1 |
| Potassium, Total | 2.1 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/24/2022 13:48 | SRT | D1 |
| Sodium, Dissolved | 8.1 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 16:54 | SRT | E1 |
| Sodium, Total | 8.3 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/24/2022 13:48 | SRT | D1 |

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 | 08/13/2022 18:50 | TMP | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:50 | TMP | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:50 | TMP | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:50 | TMP | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:50 | TMP | J |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:50 | TMP | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:50 | TMP | J |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:50 | TMP | J |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:50 | TMP | J |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:50 | TMP | J |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:50 | TMP | J |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:50 | TMP | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:50 | TMP | J |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:50 | TMP | J |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:50 | TMP | J |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:50 | TMP | J |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 89.1% | 70 - 130 | 08/13/2022 18:50 | |

WET CHEMISTRY



Results

| Client Sample ID | 3056RIVERRD | Collected | 08/05/2022 14:20 | | | | | | |
|------------------------------|-------------|-------------|------------------|-------|------------------|----------|--------------------|-----|------|
| Lab Sample ID | 3256976001 | Lab Receipt | 08/05/2022 17:15 | | | | | | |
| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
| Alkalinity, Bicarbonate | 14 | | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 04:35 | BXD | A |
| Alkalinity, Total | 14 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 04:35 | BXD | A |
| Ammonia-N | ND | ND | mg/L | 0.100 | ASTM D6919-09 | 10 | 08/11/2022 09:26 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/10/2022 14:47 | KMS | C |
| Chloride | 22.7 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 17:52 | M1D | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/06/2022 17:52 | M1D | A |
| Halogen, Total Organic (TOX) | ND | ND | ug/L | 20.0 | SW846 9020B | 1 | 08/08/2022 18:00 | PAG | I |
| Nitrate-N | 14.6 | E,2 | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 17:52 | M1D | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 17:52 | M1D | A |
| pH | 6.77 | 3 | pH_Units | | S4500HB-11 | 1 | 08/17/2022 04:35 | BXD | A |
| Phenolics | 0.004 | | mg/L | 0.004 | EPA 420.4 | 1 | 08/23/2022 12:17 | AKH | H |
| Specific Conductance | 239 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/26/2022 16:49 | BXD | A |
| Sulfate | ND | ND | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 17:52 | M1D | A |
| Total Dissolved Solids | 170 | | mg/L | 25 | S2540C-11 | 1 | 08/10/2022 08:57 | SMS | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-2011 | 1 | 08/10/2022 04:28 | PAG | F |
| Turbidity | 0.83 | | NTU | 0.30 | SM2130B-2011 | 1 | 08/06/2022 04:41 | LXZ | A |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|-------------|-----------------|--------------------|-----------------|
| 3256976001 | 3056RIVERRD | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 524.2 | N/A | |
| | | ASTM D6919-09 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | 420.4/9066 | |
| | | S2540C-11 | N/A | |
| | | S4500HB-11 | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM5310B-2011 | N/A | |
| | | SW846 9020B | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|-------------|--------------------|------------|------------------|-----|-----------------|------------|
| 3256976001 | 3056RIVERRD | N/A | N/A | N/A | | Field | 869647 |
| | | EPA TRMD | 871056 | 08/14/2022 23:24 | ANN | EPA 200.7 | 873748 |
| | | EPA ACID | 873735 | 08/24/2022 14:57 | MO | EPA 200.7 | 873736 |
| | | N/A | N/A | N/A | | EPA 524.2 | 870954 |
| | | N/A | N/A | N/A | | ASTM D6919-09 | 870060 |
| | | N/A | N/A | N/A | | EPA 300.0 | 869566 |
| | | N/A | N/A | N/A | | EPA 410.4 | 870085 |
| | | 420.4/9066 | 870188 | 08/10/2022 15:34 | AKH | EPA 420.4 | 873239 |
| | | N/A | N/A | N/A | | S2540C-11 | 869805 |
| | | N/A | N/A | N/A | | S4500HB-11 | 871363 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 869453 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 871363 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 874172 |
| | | N/A | N/A | N/A | | SM5310B-2011 | 869936 |
| | | N/A | N/A | N/A | | SW846 9020B | 869681 |



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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

Analytical Results Report For

Lancaster County Solid Waste Authority

Project 3RD QTR 2022 3060 RIVER RD
Workorder 3256975
Report ID 190630 on 8/29/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 05, 2022.

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.

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ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

- Ashley Gichuki - Lancaster County Solid Waste Authority
- Daniel Brown - Lancaster County Solid Waste Authority
- Jordan Gallagher - Lancaster County Solid Waste Authority
- Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

Susan Scherer
Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3256975002 | 3060RIVERRD | Water | 08/05/2022 14:10 | 08/05/2022 17:15 | BGS | Analytical Laboratory Service |



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.
- 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 performed 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 | Reporting Detection Limit |
| 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.

| | |
|---|---|
| E | Result reported exceeds instrument calibration |
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 2 | This sample was reran out of hold within the instrument's calibration range, for the analyte Nitrate-N, and confirms the initial in-hold reported result. |
| 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. |



Detected Results Summary

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | 3060RIVERRD | Collected | 08/05/2022 14:10 |
| Lab Sample ID | 3256975002 | Lab Receipt | 08/05/2022 17:15 |

| Compound | Result | Units | RDL | Method | Flag |
|-----------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 5.17 | pH_Units | | Field | # |
| Specific Conductance, Field | 241 | umhos/cm | 1 | Field | # |
| Temperature | 15.30 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 10.6 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 10.9 | mg/L | 0.050 | EPA 200.7 | # |
| Iron, Total | 0.045 | mg/L | 0.030 | EPA 200.7 | # |
| Magnesium, Dissolved | 10.8 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 11.1 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.049 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.11 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 2.5 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 2.4 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 7.9 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 8.0 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 15 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 15 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 17.6 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 14.4 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.45 | pH_Units | | S4500HB-11 | # |
| Phenolics | 0.006 | mg/L | 0.004 | EPA 420.4 | # |
| Specific Conductance | 251 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 8.8 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 163 | mg/L | 25 | S2540C-11 | # |
| Turbidity | 1.8 | NTU | 0.30 | SM2130B-2011 | # |



Results

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | 3060RIVERRD | Collected | 08/05/2022 14:10 |
| Lab Sample ID | 3256975002 | Lab Receipt | 08/05/2022 17:15 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 5.17 | | pH_Units | | Field | 1 | 08/05/2022 14:10 | BGS | M |
| Specific Conductance, Field | 241 | | umhos/cm | 1 | Field | 1 | 08/05/2022 14:10 | BGS | M |
| Temperature | 15.30 | | Deg. C | | Field | 1 | 08/05/2022 14:10 | BGS | M |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 10.6 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 16:51 | SRT | E1 |
| Calcium, Total | 10.9 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/24/2022 13:44 | SRT | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/24/2022 16:51 | SRT | E1 |
| Iron, Total | 0.045 | | mg/L | 0.030 | EPA 200.7 | 1 | 08/24/2022 13:44 | SRT | D1 |
| Magnesium, Dissolved | 10.8 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 16:51 | SRT | E1 |
| Magnesium, Total | 11.1 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/24/2022 13:44 | SRT | D1 |
| Manganese, Dissolved | 0.049 | | mg/L | 0.0050 | EPA 200.7 | 1 | 08/24/2022 16:51 | SRT | E1 |
| Manganese, Total | 0.11 | | mg/L | 0.0025 | EPA 200.7 | 1 | 08/24/2022 13:44 | SRT | D1 |
| Potassium, Dissolved | 2.5 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 16:51 | SRT | E1 |
| Potassium, Total | 2.4 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/24/2022 13:44 | SRT | D1 |
| Sodium, Dissolved | 7.9 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 16:51 | SRT | E1 |
| Sodium, Total | 8.0 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/24/2022 13:44 | SRT | D1 |

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 | 08/13/2022 18:24 | TMP | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:24 | TMP | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:24 | TMP | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:24 | TMP | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:24 | TMP | J |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:24 | TMP | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:24 | TMP | J |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:24 | TMP | J |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:24 | TMP | J |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:24 | TMP | J |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:24 | TMP | J |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:24 | TMP | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:24 | TMP | J |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:24 | TMP | J |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:24 | TMP | J |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 18:24 | TMP | J |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 90.4% | 70 - 130 | 08/13/2022 18:24 | |

WET CHEMISTRY



Results

| Client Sample ID | 3060RIVERRD | Collected | 08/05/2022 14:10 | | | | | | |
|------------------------------|-------------|-------------|------------------|-------|------------------|----------|--------------------|-----|------|
| Lab Sample ID | 3256975002 | Lab Receipt | 08/05/2022 17:15 | | | | | | |
| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
| Alkalinity, Bicarbonate | 15 | | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 04:25 | BXD | A |
| Alkalinity, Total | 15 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 04:25 | BXD | A |
| Ammonia-N | ND | ND | mg/L | 0.100 | ASTM D6919-09 | 10 | 08/11/2022 03:38 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/10/2022 14:47 | KMS | C |
| Chloride | 17.6 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 16:59 | M1D | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/06/2022 16:59 | M1D | A |
| Halogen, Total Organic (TOX) | ND | ND | ug/L | 20.0 | SW846 9020B | 1 | 08/08/2022 18:00 | PAG | I |
| Nitrate-N | 14.4 | E,2 | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 16:59 | M1D | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 16:59 | M1D | A |
| pH | 6.45 | 3 | pH_Units | | S4500HB-11 | 1 | 08/17/2022 04:25 | BXD | A |
| Phenolics | 0.006 | | mg/L | 0.004 | EPA 420.4 | 1 | 08/11/2022 13:11 | AKH | H |
| Specific Conductance | 251 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/26/2022 16:49 | BXD | A |
| Sulfate | 8.8 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 16:59 | M1D | A |
| Total Dissolved Solids | 163 | | mg/L | 25 | S2540C-11 | 1 | 08/10/2022 08:57 | SMS | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-2011 | 1 | 08/10/2022 04:28 | PAG | F |
| Turbidity | 1.8 | | NTU | 0.30 | SM2130B-2011 | 1 | 08/06/2022 04:41 | LXZ | A |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|-------------|-----------------|--------------------|-----------------|
| 3256975002 | 3060RIVERRD | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 524.2 | N/A | |
| | | ASTM D6919-09 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | 420.4/9066 | |
| | | S2540C-11 | N/A | |
| | | S4500HB-11 | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM5310B-2011 | N/A | |
| | | SW846 9020B | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|-------------|--------------------|------------|------------------|-----|-----------------|------------|
| 3256975002 | 3060RIVERRD | N/A | N/A | N/A | | Field | 869647 |
| | | EPA TRMD | 871056 | 08/14/2022 23:24 | ANN | EPA 200.7 | 873748 |
| | | EPA ACID | 873735 | 08/24/2022 14:57 | MO | EPA 200.7 | 873736 |
| | | N/A | N/A | N/A | | EPA 524.2 | 870954 |
| | | N/A | N/A | N/A | | ASTM D6919-09 | 870055 |
| | | N/A | N/A | N/A | | EPA 300.0 | 869566 |
| | | N/A | N/A | N/A | | EPA 410.4 | 870085 |
| | | 420.4/9066 | 870191 | 08/10/2022 15:34 | AKH | EPA 420.4 | 870370 |
| | | N/A | N/A | N/A | | S2540C-11 | 869805 |
| | | N/A | N/A | N/A | | S4500HB-11 | 871363 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 869453 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 871363 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 874172 |
| | | N/A | N/A | N/A | | SM5310B-2011 | 869934 |
| | | N/A | N/A | N/A | | SW846 9020B | 869681 |



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301 Filling Mill Road • Middletown, PA 17057 • 717-944-5541 • Fax: 717-944-1430

Client Name: Lancaster County Solid Waste MA
Address: 1299 Harrisburg Pike, P.O. Box 4424
 Lancaster, PA 17604
Contact: Dan Brown
Phone#: (717) 735-0193

Project Name#: LCSWMA - Quarterly
Bill To: Lancaster County Solid Waste MA

TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
Date Required: _____ **Approved By:** _____
Email? -Y -N
Fax? -Y -N

Sample Description/Location
 (as it will appear on the lab report)

| Sample | Date | Time |
|---------------|----------|------|
| 1 3060RIVERRD | 08/05/22 | 1410 |
| 2. Trip Blank | 08/05/22 | 1715 |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

Project Comments:

LOGGED BY (signature): _____
 REVIEWED BY (signature): _____

| Received By / Company Name | Date | Time |
|----------------------------|----------|------|
| 1 <i>[Signature]</i> ALS | 08-05-22 | 1715 |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

* G=Grab, C=Composite **Matrix - AI=Air, DW=Drinking Water, GW=Groundwater, OI=Oil, OL=Other Liquid, SL=Sludge, SO=Soil, WP=Misc. Waste

CHAIN OF CUSTODY / REQUEST FOR ANALYSIS
ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Generated by ALS

COC
ALS

| Container Type | AG | AN | AN | CG | PL | PL | PL |
|----------------|-------|--------|--------|-------|--------|--------|--------|
| Container Size | 40 ml | 125 ml | 250 ml | 40 ml | 125 ml | 125 ml | 500 ml |
| Preservative | HCl | H2SO4 | H2SO4 | HCl | HNO3 | HNO3 | None |

ANALYSES/METHOD REQUESTED

| Matrix | TOC | O-OH | TOX | 524 VOCs | 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, T | Alkalinity, HCO3 |
|--------|-----|------|-----|----------|----|------------|---|-------------------------------|-------------------------------|------------------|
| G or C | 2 | 1 | 2 | 3 | X | 1 | 1 | 1 | 1 | 1 |
| C | | | | 2 | | | | | | |

Enter Number of Containers Per Sample or Field Results Below.

| Sample | Date | Time |
|---------------|----------|------|
| 1 3060RIVERRD | 08/05/22 | 1410 |
| 2. Trip Blank | 08/05/22 | 1715 |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

LOGGED BY (signature): _____

REVIEWED BY (signature): _____

| Received By / Company Name | Date | Time |
|----------------------------|----------|------|
| 1 <i>[Signature]</i> ALS | 08-05-22 | 1715 |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

* G=Grab, C=Composite **Matrix - AI=Air, DW=Drinking Water, GW=Groundwater, OI=Oil, OL=Other Liquid, SL=Sludge, SO=Soil, WP=Misc. Waste

3256975
 Logged By: RNF
 PM: SJB



Therm ID: _____
 Therm ID: _____
 Therm ID: _____

Temp Taken By: _____
 WO Temp (°C): _____
 Therm ID: 570
 Receipt Info Completed By: *[Signature]*
 Cooler Custody Seal Intact
 Sample Custody Seal Intact
 Received on Ice
 Cooler & Samples Intact
 Correct Containers Provided
 Sample Label/COC Agree
 Adequate Sample Volumes
 VOA Headspace Present
 Voa Trip Blank
 NUS 4 Days?
 Rad Screen (uCi) _____
 Courier/Tracking #: _____

SDWA Compliance
 PWSID _____
 WV Containers 0-6°C

ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other: _____

| Special Processing | State Samples Collected In |
|---|--|
| USACE <input type="checkbox"/> | NY <input type="checkbox"/> |
| Navy <input type="checkbox"/> | NJ <input type="checkbox"/> |
| Reportable to PADEP? <input type="checkbox"/> | PA <input checked="" type="checkbox"/> |
| Lab <input checked="" type="checkbox"/> | NC <input type="checkbox"/> |
| Special <input type="checkbox"/> | |

EDDS: Format Type: _____



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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

Analytical Results Report For

Lancaster County Solid Waste Authority

Project 3rd QTR 2022-3076 RIVER RD
Workorder 3256974
Report ID 190623 on 8/29/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 05, 2022.

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.

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ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jordan Gallagher - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

Susan Scherer
Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|--------------------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3256974001 | 3076 River Road, Conestoga, PA | Water | 08/05/2022 14:00 | 08/05/2022 17:15 | BGS | Analytical Laboratory Service |



Reference

Notes

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- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136.
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| | |
|--------|--|
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| N | Indicates presumptive evidence of the presence of a compound |
| MDL | Method Detection Limit |
| PQL | Practical Quantitation Limit |
| RDL | Reporting Detection Limit |
| 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.



Detected Results Summary

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3076 River Road, Conestoga, PA | Collected | 08/05/2022 14:00 |
| Lab Sample ID | 3256974001 | Lab Receipt | 08/05/2022 17:15 |

| Compound | Result | Units | RDL | Method | Flag |
|-----------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 6.15 | pH_Units | | Field | # |
| Specific Conductance, Field | 308 | umhos/cm | 1 | Field | # |
| Temperature | 15.00 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 13.5 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 13.9 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 8.3 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 8.6 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.17 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.18 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 3.4 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 3.3 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 23.7 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 23.9 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 14 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 13 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 51.2 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 8.4 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.59 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 320 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 10.8 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 186 | mg/L | 25 | S2540C-11 | # |
| Turbidity | 0.42 | NTU | 0.30 | SM2130B-2011 | # |



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3076 River Road, Conestoga, PA | Collected | 08/05/2022 14:00 |
| Lab Sample ID | 3256974001 | Lab Receipt | 08/05/2022 17:15 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 6.15 | | pH_Units | | Field | 1 | 08/05/2022 14:00 | BGS | M |
| Specific Conductance, Field | 308 | | umhos/cm | 1 | Field | 1 | 08/05/2022 14:00 | BGS | M |
| Temperature | 15.00 | | Deg. C | | Field | 1 | 08/05/2022 14:00 | BGS | M |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 13.5 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 16:41 | SRT | E1 |
| Calcium, Total | 13.9 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/24/2022 13:41 | SRT | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/24/2022 16:41 | SRT | E1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/24/2022 13:41 | SRT | D1 |
| Magnesium, Dissolved | 8.3 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 16:41 | SRT | E1 |
| Magnesium, Total | 8.6 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/24/2022 13:41 | SRT | D1 |
| Manganese, Dissolved | 0.17 | | mg/L | 0.0050 | EPA 200.7 | 1 | 08/24/2022 16:41 | SRT | E1 |
| Manganese, Total | 0.18 | | mg/L | 0.0025 | EPA 200.7 | 1 | 08/24/2022 13:41 | SRT | D1 |
| Potassium, Dissolved | 3.4 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 16:41 | SRT | E1 |
| Potassium, Total | 3.3 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/24/2022 13:41 | SRT | D1 |
| Sodium, Dissolved | 23.7 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 16:41 | SRT | E1 |
| Sodium, Total | 23.9 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/24/2022 13:41 | SRT | D1 |

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 | 08/13/2022 17:58 | TMP | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:58 | TMP | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:58 | TMP | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:58 | TMP | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:58 | TMP | J |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:58 | TMP | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:58 | TMP | J |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:58 | TMP | J |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:58 | TMP | J |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:58 | TMP | J |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:58 | TMP | J |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:58 | TMP | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:58 | TMP | J |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:58 | TMP | J |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:58 | TMP | J |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:58 | TMP | J |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 90.9% | 70 - 130 | 08/13/2022 17:58 | |

WET CHEMISTRY



Results

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|--------|------|----------|-------|------------------|----------|--------------------|-----|------|
| Alkalinity, Bicarbonate | 14 | | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 15:54 | BXD | A |
| Alkalinity, Total | 13 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 04:14 | BXD | A |
| Ammonia-N | ND | ND | mg/L | 0.100 | ASTM D6919-09 | 10 | 08/11/2022 01:32 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/10/2022 14:47 | KMS | C |
| Chloride | 51.2 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 16:49 | M1D | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/06/2022 16:49 | M1D | A |
| Halogen, Total Organic (TOX) | ND | ND | ug/L | 20.0 | SW846 9020B | 1 | 08/08/2022 18:00 | PAG | I |
| Nitrate-N | 8.4 | | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 16:49 | M1D | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 16:49 | M1D | A |
| pH | 6.59 | 2 | pH_Units | | S4500HB-11 | 1 | 08/17/2022 04:14 | BXD | A |
| Phenolics | ND | ND | mg/L | 0.004 | EPA 420.4 | 1 | 08/11/2022 11:21 | AKH | H |
| Specific Conductance | 320 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/26/2022 16:49 | BXD | A |
| Sulfate | 10.8 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 16:49 | M1D | A |
| Total Dissolved Solids | 186 | | mg/L | 25 | S2540C-11 | 1 | 08/10/2022 08:57 | SMS | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-2011 | 1 | 08/10/2022 04:28 | PAG | F |
| Turbidity | 0.42 | | NTU | 0.30 | SM2130B-2011 | 1 | 08/06/2022 04:41 | LXZ | A |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|--------------------------------|-----------------|--------------------|-----------------|
| 3256974001 | 3076 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 524.2 | N/A | |
| | | ASTM D6919-09 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | 420.4/9066 | |
| | | S2540C-11 | N/A | |
| | | S4500HB-11 | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM5310B-2011 | N/A | |
| | | SW846 9020B | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|--------------------------------|--------------------|------------|------------------|--------|-----------------|------------|
| 3256974001 | 3076 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | 869647 |
| | | EPA TRMD | 871056 | 08/14/2022 23:24 | ANN | EPA 200.7 | 873748 |
| | | EPA ACID | 873735 | 08/24/2022 14:57 | MO | EPA 200.7 | 873736 |
| | | N/A | N/A | N/A | | EPA 524.2 | 870954 |
| | | N/A | N/A | N/A | | ASTM D6919-09 | 870055 |
| | | N/A | N/A | N/A | | EPA 300.0 | 869566 |
| | | N/A | N/A | N/A | | EPA 410.4 | 870085 |
| | | 420.4/9066 | 870188 | 08/10/2022 15:34 | AKH | EPA 420.4 | 870370 |
| | | N/A | N/A | N/A | | S2540C-11 | 869805 |
| | | N/A | N/A | N/A | | S4500HB-11 | 871363 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 869453 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 871363 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 871921 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 874172 |
| | | N/A | N/A | N/A | | SM5310B-2011 | 869934 |
| N/A | N/A | N/A | | SW846 9020B | 869681 | | |



301 Filling Mill Road • Middletown, PA 17057 • Phone: 717.944.5541 • Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

COC #: 3256974

Logged By: AHF
PM: SJB



Client Name: LCSWMA - Brian Sensenich
Address: 3076 Rover Road
Conestoga, PA 17516
Contact: Brian Sensenich
Phone#: (717) 676-5779

Project Name#: LCSWMA - Quarterly
Bill To: LCSWMA - Brian Sensenich

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

Date Required: _____ Approved By: _____
Email? -Y -N No.: _____
Fax? -Y -N No.: _____

Sample Description/Location (as it will appear on the lab report)

Sample Date Time

1. 3076RIVERRD 08/05/22 1400

2. Trip Blank 08/05/22 1745

3

4

5

6

7

8

9

10

Project Comments:

LOGGED BY (signature):

REVIEWED BY (signature):

Date Time Received By / Company Name

1. 8/5/22 1745

3

4

5

6

7

8

9

10

**Matrix - A=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

*G=Grab; C=Composite

Container Type

Container Size

Preservative

AG AN AN CG PL PL PL PL PL PL

40 ml 125 ml 250 ml 40 ml 250 ml 125 ml 125 ml 125 ml 500 ml 500 ml

HCl H2SO4 H2SO4 Asc&HCl H2SO4 HNO3 HNO3 HNO3 None None

FM NH3-N, COD TOX TOC

524 VOCs

Dissolved Metals: Ca, Fe, Mg, Mn, K, Na

Metals: Ca, Fe, Mg, Mn, K, Na

pH, TDS, NO2, NO3, Cl, SO4, T

Tb, Spc

Alkalinity, HCO3

Enter Number of Containers Per Sample or Field Results Below.

Temp Taken By: AWF
WO Temp (°C): 570
Therm ID: 570
Receipt Info Completed By: ETC
Cooler Custody Seal Intact: Y N NA
Sample Custody Seal Intact: Y N NA
Received on Ice: Y N NA
Cooler & Samples Intact: Y N NA
Correct Containers Provided: Y N NA
Sample Label/COC Agree: Y N NA
Adequate Sample Volumes: Y N NA
VOA-Headspace Present: Y N NA
Voa Trip Blank: Y N NA
NI: 4 Days? Y N NA
Rad Screen (uCi): Y N NA
Courier/Tracking #: Y N NA
SDWA Compliance: Y
PWSID: Y
WW Containers 0-6°C: Y N

ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other:

Special Processing: USACE Navy
State Samples Collected In: NY NJ PA NC
Sample Disposal: Lab Special

Standard CLP-like USACE
Reportable to PADEP? Yes No
PWSID #
EDDS: Format Type



301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

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

Analytical Results Report For

Lancaster County Solid Waste Authority

Project 3rd QTR 2022 3079 RIVER RD
Workorder 3256973
Report ID 190641 on 8/29/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 05, 2022.

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):

Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jordan Gallagher - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

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

Susan Scherer
Project Coordinator

(ALS Digital Signature)



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3256973002 | 3079RIVERRD | Water | 08/05/2022 15:00 | 08/05/2022 17:15 | BGS | Analytical Laboratory Service |



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.
- 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 performed 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 | Reporting Detection Limit |
| 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 CaCO ₃ /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. |



Detected Results Summary

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | 3079RIVERRD | Collected | 08/05/2022 15:00 |
| Lab Sample ID | 3256973002 | Lab Receipt | 08/05/2022 17:15 |

| Compound | Result | Units | RDL | Method | Flag |
|-----------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 6.19 | pH_Units | | Field | # |
| Specific Conductance, Field | 224 | umhos/cm | 1 | Field | # |
| Temperature | 15.10 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 10.5 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 11.0 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 5.7 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 5.9 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.033 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.034 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 1.9 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 1.9 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 12.5 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 12.8 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 27 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 27 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 35.5 | mg/L | 2.0 | EPA 300.0 | # |
| pH | 6.94 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 202 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 6.4 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 118 | mg/L | 25 | S2540C-11 | # |



Results

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | 3079RIVERRD | Collected | 08/05/2022 15:00 |
| Lab Sample ID | 3256973002 | Lab Receipt | 08/05/2022 17:15 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 6.19 | | pH_Units | | Field | 1 | 08/05/2022 15:00 | BGS | M |
| Specific Conductance, Field | 224 | | umhos/cm | 1 | Field | 1 | 08/05/2022 15:00 | BGS | M |
| Temperature | 15.10 | | Deg. C | | Field | 1 | 08/05/2022 15:00 | BGS | M |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 10.5 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 16:37 | SRT | E1 |
| Calcium, Total | 11.0 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/24/2022 13:38 | SRT | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/24/2022 16:37 | SRT | E1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/24/2022 13:38 | SRT | D1 |
| Magnesium, Dissolved | 5.7 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 16:37 | SRT | E1 |
| Magnesium, Total | 5.9 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/24/2022 13:38 | SRT | D1 |
| Manganese, Dissolved | 0.033 | | mg/L | 0.0050 | EPA 200.7 | 1 | 08/24/2022 16:37 | SRT | E1 |
| Manganese, Total | 0.034 | | mg/L | 0.0025 | EPA 200.7 | 1 | 08/24/2022 13:38 | SRT | D1 |
| Potassium, Dissolved | 1.9 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 16:37 | SRT | E1 |
| Potassium, Total | 1.9 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/24/2022 13:38 | SRT | D1 |
| Sodium, Dissolved | 12.5 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 16:37 | SRT | E1 |
| Sodium, Total | 12.8 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/24/2022 13:38 | SRT | D1 |

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 | 08/13/2022 17:32 | TMP | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:32 | TMP | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:32 | TMP | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:32 | TMP | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:32 | TMP | J |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:32 | TMP | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:32 | TMP | J |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:32 | TMP | J |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:32 | TMP | J |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:32 | TMP | J |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:32 | TMP | J |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:32 | TMP | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:32 | TMP | J |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:32 | TMP | J |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:32 | TMP | J |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 17:32 | TMP | J |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 92.6% | 70 - 130 | 08/13/2022 17:32 | |

WET CHEMISTRY



Results

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|-------------|------|----------|-------|------------------|------------------|--------------------|-----|------|
| Client Sample ID | 3079RIVERRD | | | | Collected | 08/05/2022 15:00 | | | |
| Lab Sample ID | 3256973002 | | | | Lab Receipt | 08/05/2022 17:15 | | | |
| Alkalinity, Bicarbonate | 27 | | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 04:04 | BXD | A |
| Alkalinity, Total | 27 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 04:04 | BXD | A |
| Ammonia-N | ND | ND | mg/L | 0.100 | ASTM D6919-09 | 10 | 08/10/2022 21:49 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/10/2022 14:47 | KMS | C |
| Chloride | 35.5 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 16:39 | M1D | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/06/2022 16:39 | M1D | A |
| Halogen, Total Organic (TOX) | ND | ND | ug/L | 20.0 | SW846 9020B | 1 | 08/09/2022 17:46 | PAG | I |
| Nitrate-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 16:39 | M1D | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 16:39 | M1D | A |
| pH | 6.94 | 2 | pH_Units | | S4500HB-11 | 1 | 08/17/2022 04:04 | BXD | A |
| Phenolics | ND | ND | mg/L | 0.004 | EPA 420.4 | 1 | 08/11/2022 11:34 | AKH | H |
| Specific Conductance | 202 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/26/2022 16:49 | BXD | A |
| Sulfate | 6.4 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 16:39 | M1D | A |
| Total Dissolved Solids | 118 | | mg/L | 25 | S2540C-11 | 1 | 08/10/2022 08:57 | SMS | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-2011 | 1 | 08/10/2022 04:28 | PAG | F |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 08/06/2022 04:52 | LXZ | A |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|-------------|-----------------|--------------------|-----------------|
| 3256973002 | 3079RIVERRD | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 524.2 | N/A | |
| | | ASTM D6919-09 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | 420.4/9066 | |
| | | S2540C-11 | N/A | |
| | | S4500HB-11 | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM5310B-2011 | N/A | |
| | | SW846 9020B | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|-------------|--------------------|------------|------------------|-----|-----------------|------------|
| 3256973002 | 3079RIVERRD | N/A | N/A | N/A | | Field | 869647 |
| | | EPA TRMD | 871056 | 08/14/2022 23:24 | ANN | EPA 200.7 | 873748 |
| | | EPA ACID | 873735 | 08/24/2022 14:57 | MO | EPA 200.7 | 873736 |
| | | N/A | N/A | N/A | | EPA 524.2 | 870954 |
| | | N/A | N/A | N/A | | ASTM D6919-09 | 870053 |
| | | N/A | N/A | N/A | | EPA 300.0 | 869566 |
| | | N/A | N/A | N/A | | EPA 410.4 | 870085 |
| | | 420.4/9066 | 870188 | 08/10/2022 15:34 | AKH | EPA 420.4 | 870370 |
| | | N/A | N/A | N/A | | S2540C-11 | 869805 |
| | | N/A | N/A | N/A | | S4500HB-11 | 871363 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 869454 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 871363 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 874172 |
| | | N/A | N/A | N/A | | SM5310B-2011 | 869934 |
| | | N/A | N/A | N/A | | SW846 9020B | 869867 |



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**CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS**
**ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/
SAMPLER. INSTRUCTIONS ON THE BACK.**

COC # **3256973**
Logged By: AMF
PH: SUB
1 of 1
g Lab)

Client Name: Lancaster County Solid Waste MA
Address: 1299 Harrisburg Pike, P.O. Box 4424
Lancaster, PA 17604
Contact: Dan Brown
Phone#: (717) 735-0193

Project Name#: LCSWMA - Quarterly Fire Co.
Bill To: Lancaster County Solid Waste MA

TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
Date Required: _____ Approved By: _____
Email? -Y -N
Fax? -Y -N

| Sample Description/Location (as it will appear on the lab report) | Sample Date | Time |
|--|-------------|------|
| 1. 3079RIVERRD | 08/05/22 | 1500 |
| 2. Trip Blank | 08/05/22 | 1715 |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

Project Comments:

Requisitioned By: *[Signature]* Company Name: *ALS*
Date: *08/05/22* Time: *1715*

| Container Type | AG | AN | AN | CG | PL | PL | PL | PL |
|----------------|-------|--------|--------|-------|--------|--------|--------|--------|
| Container Size | 40 ml | 125 ml | 250 ml | 40 ml | 250 ml | 125 ml | 125 ml | 500 ml |
| Preservative | HCl | H2SO4 | H2SO4 | AsHCl | H2SO4 | HNO3 | HNO3 | None |

ANALYSES/METHOD REQUESTED

| Matrix | TOC | O-OH | TOX | 524 VOC | FM | NH3-N, COD | Dissolved Metals: Ca, Fe, Mg, Mn, K, Na | K, Na | Metals: Ca, Fe, Mg, Mn, K, Na | PH, TDS, NO2, NO3, Cl, SO4, Tr | Tb, Spc | Alkalinity, HCO3 |
|--------|-----|------|-----|---------|----|------------|---|-------|-------------------------------|--------------------------------|---------|------------------|
| G or C | 2 | 1 | 2 | 3 | X | 1 | 1 | 1 | 1 | 1 | | |
| DW | | | | | | | | | | | | |
| G DW | | | | 2 | | | | | | | | |

Enter Number of Containers Per Sample or Field Results Below.

| Matrix | TOC | O-OH | TOX | 524 VOC | FM | NH3-N, COD | Dissolved Metals: Ca, Fe, Mg, Mn, K, Na | K, Na | Metals: Ca, Fe, Mg, Mn, K, Na | PH, TDS, NO2, NO3, Cl, SO4, Tr | Tb, Spc | Alkalinity, HCO3 |
|--------|-----|------|-----|---------|----|------------|---|-------|-------------------------------|--------------------------------|---------|------------------|
| G or C | 2 | 1 | 2 | 3 | X | 1 | 1 | 1 | 1 | 1 | | |
| DW | | | | | | | | | | | | |
| G DW | | | | 2 | | | | | | | | |

ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other:

| Standard | Deliverables | Special Processing | State Samples Collected In |
|-----------------------------------|-----------------------------------|---|--|
| <input type="checkbox"/> Standard | <input type="checkbox"/> CLP-like | USACE <input type="checkbox"/> | NY <input type="checkbox"/> |
| <input type="checkbox"/> USACE | <input type="checkbox"/> USACE | Navy <input type="checkbox"/> | NJ <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | Sample Disposal | PA <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | Lab <input checked="" type="checkbox"/> | NC <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | Special <input type="checkbox"/> | |

Temp Taken By: _____ AWF
WO Temp (°C) _____
Therm ID: 570
Receipt Info Completed By: *EJC*
Cooler Custody Seal Intact: Y N NA
Sample Custody Seal Intact: Y N NA
Received on Ice: Y N NA
Cooler & Samples Intact: Y N NA
Correct Container's Provided: Y N NA
Sample Label/COC Agree: Y N NA
Adequate Sample Volumes: Y N NA
VOA Headspace Present: Y N NA
Voa Trip Blank: Y N NA
NLS 4 Days? Y N
Rad Screen (uCi) _____
Courier/Tracking #: _____
SDWA Compliance: Y
PWSID: Y N
WV Containers 0-6°C: Y N

Cooler Temp: _____ Therm ID: _____
initial _____



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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

Analytical Results Report For **Lancaster County Solid Waste Authority**
 Project 3rd QTR 2022-3088 RIVER RD
 Workorder 3256972
 Report ID 190622 on 8/29/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 05, 2022.

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):
 Ashley Gichuki - Lancaster County Solid Waste Authority
 Daniel Brown - Lancaster County Solid Waste Authority
 Jordan Gallagher - Lancaster County Solid Waste Authority
 Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

Susan Scherer
 Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|-------------------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3256972001 | 3088 River Road, Conestoga PA | Water | 08/05/2022 13:51 | 08/05/2022 17:15 | BGS | Analytical Laboratory Service |



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.
- 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 performed 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 | Reporting Detection Limit |
| 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 300.0 was outside the control limits for the analyte Nitrite. The % Recovery was reported as 172 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 EPA 300.0 was outside the control limits for the analyte Sulfate. The % Recovery was reported as 126 and the control limits were 80 to 120. |



Detected Results Summary

| | | | |
|------------------|-------------------------------|-------------|------------------|
| Client Sample ID | 3088 River Road, Conestoga PA | Collected | 08/05/2022 13:51 |
| Lab Sample ID | 3256972001 | Lab Receipt | 08/05/2022 17:15 |

| Compound | Result | Units | RDL | Method | Flag |
|-----------------------------|--------|----------|-------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 7.59 | pH_Units | | Field | # |
| Specific Conductance, Field | 947 | umhos/cm | 1 | Field | # |
| Temperature | 15.80 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 0.16 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 0.17 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Total | 0.066 | mg/L | 0.050 | EPA 200.7 | # |
| Potassium, Dissolved | 2.9 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 3.0 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 234 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 235 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 195 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 195 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 244 | mg/L | 10.0 | EPA 300.0 | # |
| Nitrate-N | 7.9 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 8.18 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 1290 | umhos/cm | 5 | SM2510B-2011 | # |
| Total Dissolved Solids | 670 | mg/L | 25 | S2540C-11 | # |



Results

| | | | |
|------------------|-------------------------------|-------------|------------------|
| Client Sample ID | 3088 River Road, Conestoga PA | Collected | 08/05/2022 13:51 |
| Lab Sample ID | 3256972001 | Lab Receipt | 08/05/2022 17:15 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 7.59 | | pH_Units | | Field | 1 | 08/05/2022 13:51 | BGS | M |
| Specific Conductance, Field | 947 | | umhos/cm | 1 | Field | 1 | 08/05/2022 13:51 | BGS | M |
| Temperature | 15.80 | | Deg. C | | Field | 1 | 08/05/2022 13:51 | BGS | M |

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 | 08/24/2022 16:34 | SRT | E1 |
| Calcium, Total | 0.17 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/24/2022 13:34 | SRT | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/24/2022 16:34 | SRT | E1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/24/2022 13:34 | SRT | D1 |
| Magnesium, Dissolved | ND | ND | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 16:34 | SRT | E1 |
| Magnesium, Total | 0.066 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/24/2022 13:34 | SRT | D1 |
| Manganese, Dissolved | ND | ND | mg/L | 0.0050 | EPA 200.7 | 1 | 08/24/2022 16:34 | SRT | E1 |
| Manganese, Total | ND | ND | mg/L | 0.0025 | EPA 200.7 | 1 | 08/24/2022 13:34 | SRT | D1 |
| Potassium, Dissolved | 2.9 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 16:34 | SRT | E1 |
| Potassium, Total | 3.0 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/24/2022 13:34 | SRT | D1 |
| Sodium, Dissolved | 234 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 16:34 | SRT | E1 |
| Sodium, Total | 235 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/24/2022 13:34 | SRT | D1 |

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 | 08/13/2022 15:49 | TMP | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:49 | TMP | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:49 | TMP | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:49 | TMP | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:49 | TMP | J |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:49 | TMP | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:49 | TMP | J |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:49 | TMP | J |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:49 | TMP | J |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:49 | TMP | J |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:49 | TMP | J |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:49 | TMP | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:49 | TMP | J |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:49 | TMP | J |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:49 | TMP | J |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:49 | TMP | J |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 90.5% | 70 - 130 | 08/13/2022 15:49 | |

WET CHEMISTRY



Results

| | | | |
|------------------|-------------------------------|-------------|------------------|
| Client Sample ID | 3088 River Road, Conestoga PA | Collected | 08/05/2022 13:51 |
| Lab Sample ID | 3256972001 | Lab Receipt | 08/05/2022 17:15 |

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|--------|------|----------|-------|------------------|----------|--------------------|-----|------|
| Alkalinity, Bicarbonate | 195 | | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 03:54 | BXD | A |
| Alkalinity, Total | 195 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 03:54 | BXD | A |
| Ammonia-N | ND | ND | mg/L | 0.100 | ASTM D6919-09 | 10 | 08/10/2022 21:35 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/10/2022 14:47 | KMS | C |
| Chloride | 244 | | mg/L | 10.0 | EPA 300.0 | 10 | 08/19/2022 01:42 | M1D | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/06/2022 14:54 | M1D | A |
| Halogen, Total Organic (TOX) | ND | ND | ug/L | 20.0 | SW846 9020B | 1 | 08/09/2022 17:46 | PAG | I |
| Nitrate-N | 7.9 | | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 14:54 | M1D | A |
| Nitrite-N | ND | ND,2 | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 14:54 | M1D | A |
| pH | 8.18 | 3 | pH_Units | | S4500HB-11 | 1 | 08/17/2022 03:54 | BXD | A |
| Phenolics | ND | ND | mg/L | 0.004 | EPA 420.4 | 1 | 08/11/2022 11:31 | AKH | H |
| Specific Conductance | 1290 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/26/2022 16:49 | BXD | A |
| Sulfate | ND | ND,4 | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 14:54 | M1D | A |
| Total Dissolved Solids | 670 | | mg/L | 25 | S2540C-11 | 1 | 08/10/2022 08:57 | SMS | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-2011 | 1 | 08/10/2022 04:28 | PAG | F |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 08/06/2022 04:41 | LXZ | A |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|-------------------------------|-----------------|--------------------|-----------------|
| 3256972001 | 3088 River Road, Conestoga PA | Field | N/A | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 524.2 | N/A | |
| | | ASTM D6919-09 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | 420.4/9066 | |
| | | S2540C-11 | N/A | |
| | | S4500HB-11 | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM5310B-2011 | N/A | |
| | | SW846 9020B | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|-------------------------------|--------------------|------------|------------------|--------|-----------------|------------|
| 3256972001 | 3088 River Road, Conestoga PA | N/A | N/A | N/A | | Field | 869647 |
| | | EPA ACID | 873735 | 08/24/2022 14:57 | MO | EPA 200.7 | 873736 |
| | | EPA TRMD | 871056 | 08/14/2022 23:24 | ANN | EPA 200.7 | 873748 |
| | | N/A | N/A | N/A | | EPA 524.2 | 870954 |
| | | N/A | N/A | N/A | | ASTM D6919-09 | 870053 |
| | | N/A | N/A | N/A | | EPA 300.0 | 869566 |
| | | N/A | N/A | N/A | | EPA 300.0 | 872190 |
| | | N/A | N/A | N/A | | EPA 410.4 | 870085 |
| | | 420.4/9066 | 870188 | 08/10/2022 15:34 | AKH | EPA 420.4 | 870370 |
| | | N/A | N/A | N/A | | S2540C-11 | 869805 |
| | | N/A | N/A | N/A | | S4500HB-11 | 871363 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 869453 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 871363 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 874172 |
| | | N/A | N/A | N/A | | SM5310B-2011 | 869934 |
| N/A | N/A | N/A | | SW846 9020B | 869867 | | |



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Client Name: LCSWMA - Hans Weber and Deb Kaibach
Address: 3088 River Road
 Conestoga, PA 17516
Contact: Hans Weber and Deb Kaibach
Phone#: (717) 419-7982

Project Name#: LCSWMA - Quarterly
Bill To: LCSWMA - Hans Weber and Deb Kaibach

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

Date Required: _____ **Approved By:** _____
Email? -Y -N **No.:** _____
Fax? -Y -N **No.:** _____

| Sample Description/Location (as it will appear on the lab report) | Sample Date | Time |
|--|-------------|------|
| 1 3088RIVER RD | 08/05/22 | 1351 |
| 2. Trip Blank | 08/05/22 | 1715 |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

Project Comments:
 Relinquished By / Company Name: ALS
 Date: 08/22/2022 Time: 1715

LOGGED BY (signature): _____
REVIEWED BY (signature): _____

* G=Grab, C=Composite **Matrix - Al=Air, DW=Drinking Water, GW=Groundwater, OI=Oil, CI=Other Fluid, C=Other

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

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

| Container Type | AG | AN | AN | CG | PL | PL | PL | PL | PL |
|----------------|-------|--------|--------|---------|--------|--------|--------|--------|--------|
| Container Size | 40 ml | 125 ml | 250 ml | 40 ml | 250 ml | 125 ml | 500 ml | 500 ml | 500 ml |
| Preservative | HCl | H2SO4 | H2SO4 | Asc&HCl | H2SO4 | HNO3 | HNO3 | None | None |

ANALYSES/METHOD REQUESTED

| Matrix | TOC | O-OH | TOX | 524 VOC | 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, Tb, Spc | Alkalinity, HCO3 |
|--------|-----|------|-----|---------|----|------------|---|-------------------------------|--|------------------|
| G or C | 2 | 1 | 2 | 3 | X | 1 | 1 | 1 | 1 | |
| DW | | | | | | | | | | |

Enter Number of Containers Per Sample or Field Results Below.

| Matrix | TOC | O-OH | TOX | 524 VOC | 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, Tb, Spc | Alkalinity, HCO3 |
|--------|-----|------|-----|---------|----|------------|---|-------------------------------|--|------------------|
| G or C | 2 | 1 | 2 | 3 | X | 1 | 1 | 1 | 1 | |
| DW | | | | | | | | | | |

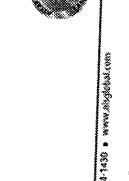
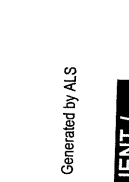
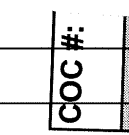
ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other:

| Standard | Deliverables | Special Processing | State Samples Collected In |
|--------------------------|--------------------------|--------------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | USACE <input type="checkbox"/> | NY <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | Navy <input type="checkbox"/> | NJ <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | USACE <input type="checkbox"/> | PA <input checked="" type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | USACE <input type="checkbox"/> | NC <input type="checkbox"/> |

Temp Taken By: AWF
WO Temp (°C): _____
Therm ID: 570
Receipt Info Completed By: ETC
 Cooler Custody Seal Intact Y N NA
 Sample Custody Seal Intact Y N NA
 Received on Ice Y N NA
 Cooler & Samples Intact Y N NA
 Correct Containers Provided Y N NA
 Sample Label/COC Agree Y N NA
 Adequate Sample Volumes Y N NA
 VOA Headspace Present Y N NA
 Voa Trip Blank Y N NA
 MJS 4 Days? Y N NA
Rad Screen (uCi): _____
Courier/Tracking#: _____
 SDWA Compliance Y N NA
 PWSID _____
 WV Containers 0 6°C Y N NA

Temp Taken By: AWF
WO Temp (°C): _____
Therm ID: 570
Receipt Info Completed By: ETC
 Cooler Custody Seal Intact Y N NA
 Sample Custody Seal Intact Y N NA
 Received on Ice Y N NA
 Cooler & Samples Intact Y N NA
 Correct Containers Provided Y N NA
 Sample Label/COC Agree Y N NA
 Adequate Sample Volumes Y N NA
 VOA Headspace Present Y N NA
 Voa Trip Blank Y N NA
 MJS 4 Days? Y N NA
Rad Screen (uCi): _____
Courier/Tracking#: _____
 SDWA Compliance Y N NA
 PWSID _____
 WV Containers 0 6°C Y N NA

COC #: 3256972
Logged By: Alkf
PM: SJB





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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

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 3rd QTR 2022-3100 RIVER RD
Workorder 3256971
Report ID 190637 on 8/29/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 05, 2022.

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):
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jordan Gallagher - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

Susan Scherer
Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|--------------------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3256971002 | 3100 River Road, Conestoga, PA | Water | 08/05/2022 13:41 | 08/05/2022 17:15 | BGS | Analytical Laboratory Service |



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.
- 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 performed 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 | Reporting Detection Limit |
| 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 CaCO ₃ /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. |



Detected Results Summary

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3100 River Road, Conestoga, PA | Collected | 08/05/2022 13:41 |
| Lab Sample ID | 3256971002 | Lab Receipt | 08/05/2022 17:15 |

| Compound | Result | Units | RDL | Method | Flag |
|-----------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 6.20 | pH_Units | | Field | # |
| Specific Conductance, Field | 243 | umhos/cm | 1 | Field | # |
| Temperature | 15.20 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 14.1 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 14.3 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 5.7 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 5.7 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.013 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.013 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 1.5 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 1.4 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 14.4 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 14.3 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 26 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 26 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 46.9 | mg/L | 2.0 | EPA 300.0 | # |
| pH | 7.01 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 230 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 11.9 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 135 | mg/L | 25 | S2540C-11 | # |
| Turbidity | 0.81 | NTU | 0.30 | SM2130B-2011 | # |



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3100 River Road, Conestoga, PA | Collected | 08/05/2022 13:41 |
| Lab Sample ID | 3256971002 | Lab Receipt | 08/05/2022 17:15 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 6.20 | | pH_Units | | Field | 1 | 08/05/2022 13:41 | BGS | M |
| Specific Conductance, Field | 243 | | umhos/cm | 1 | Field | 1 | 08/05/2022 13:41 | BGS | M |
| Temperature | 15.20 | | Deg. C | | Field | 1 | 08/05/2022 13:41 | BGS | M |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 14.1 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 16:31 | SRT | E1 |
| Calcium, Total | 14.3 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/24/2022 13:28 | SRT | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/24/2022 16:31 | SRT | E1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/24/2022 13:28 | SRT | D1 |
| Magnesium, Dissolved | 5.7 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 16:31 | SRT | E1 |
| Magnesium, Total | 5.7 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/24/2022 13:28 | SRT | D1 |
| Manganese, Dissolved | 0.013 | | mg/L | 0.0050 | EPA 200.7 | 1 | 08/24/2022 16:31 | SRT | E1 |
| Manganese, Total | 0.013 | | mg/L | 0.0025 | EPA 200.7 | 1 | 08/24/2022 13:28 | SRT | D1 |
| Potassium, Dissolved | 1.5 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 16:31 | SRT | E1 |
| Potassium, Total | 1.4 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/24/2022 13:28 | SRT | D1 |
| Sodium, Dissolved | 14.4 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 16:31 | SRT | E1 |
| Sodium, Total | 14.3 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/24/2022 13:28 | SRT | D1 |

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 | 08/13/2022 15:24 | TMP | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:24 | TMP | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:24 | TMP | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:24 | TMP | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:24 | TMP | J |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:24 | TMP | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:24 | TMP | J |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:24 | TMP | J |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:24 | TMP | J |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:24 | TMP | J |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:24 | TMP | J |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:24 | TMP | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:24 | TMP | J |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:24 | TMP | J |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:24 | TMP | J |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 15:24 | TMP | J |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 89.7% | 70 - 130 | 08/13/2022 15:24 | |

WET CHEMISTRY



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3100 River Road, Conestoga, PA | Collected | 08/05/2022 13:41 |
| Lab Sample ID | 3256971002 | Lab Receipt | 08/05/2022 17:15 |

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|--------|------|----------|-------|------------------|----------|--------------------|-----|------|
| Alkalinity, Bicarbonate | 26 | | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 03:43 | BXD | A |
| Alkalinity, Total | 26 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 03:43 | BXD | A |
| Ammonia-N | ND | ND | mg/L | 0.100 | ASTM D6919-09 | 10 | 08/11/2022 03:10 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/10/2022 14:47 | KMS | C |
| Chloride | 46.9 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 14:43 | M1D | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/06/2022 14:43 | M1D | A |
| Halogen, Total Organic (TOX) | ND | ND | ug/L | 20.0 | SW846 9020B | 1 | 08/09/2022 17:46 | PAG | I |
| Nitrate-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 14:43 | M1D | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 14:43 | M1D | A |
| pH | 7.01 | 2 | pH_Units | | S4500HB-11 | 1 | 08/17/2022 03:43 | BXD | A |
| Phenolics | ND | ND | mg/L | 0.004 | EPA 420.4 | 1 | 08/11/2022 11:28 | AKH | H |
| Specific Conductance | 230 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/26/2022 16:49 | BXD | A |
| Sulfate | 11.9 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 14:43 | M1D | A |
| Total Dissolved Solids | 135 | | mg/L | 25 | S2540C-11 | 1 | 08/09/2022 08:44 | SMS | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-2011 | 1 | 08/10/2022 04:28 | PAG | F |
| Turbidity | 0.81 | | NTU | 0.30 | SM2130B-2011 | 1 | 08/06/2022 04:41 | LXZ | A |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|--------------------------------|-----------------|--------------------|-----------------|
| 3256971002 | 3100 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 524.2 | N/A | |
| | | ASTM D6919-09 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | 420.4/9066 | |
| | | S2540C-11 | N/A | |
| | | S4500HB-11 | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM5310B-2011 | N/A | |
| | | SW846 9020B | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|--------------------------------|--------------------|------------|------------------|-----|-----------------|------------|
| 3256971002 | 3100 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | 869647 |
| | | EPA TRMD | 871056 | 08/14/2022 23:24 | ANN | EPA 200.7 | 873748 |
| | | EPA ACID | 873735 | 08/24/2022 14:57 | MO | EPA 200.7 | 873736 |
| | | N/A | N/A | N/A | | EPA 524.2 | 870954 |
| | | N/A | N/A | N/A | | ASTM D6919-09 | 870055 |
| | | N/A | N/A | N/A | | EPA 300.0 | 869566 |
| | | N/A | N/A | N/A | | EPA 410.4 | 870085 |
| | | 420.4/9066 | 870188 | 08/10/2022 15:34 | AKH | EPA 420.4 | 870370 |
| | | N/A | N/A | N/A | | S2540C-11 | 869634 |
| | | N/A | N/A | N/A | | S4500HB-11 | 871363 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 869453 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 871363 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 874172 |
| | | N/A | N/A | N/A | | SM5310B-2011 | 869934 |
| | | N/A | N/A | N/A | | SW846 9020B | 869867 |



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Client Name: LCSWMA - Larry Kirchner

Address: 3100 River Road

Conestoga, PA 17516

Contact: Larry Kirchner

Phone#: (717) 684-0030

Project Name#: LCSWMA - Quarterly

Bill To: Lancaster County Solid Waste MA

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

Date Required: -Y -N Approved By: _____

Email? -Y -N

Fax? -Y -N

| Sample Description/Location (as it will appear on the lab report) | Sample Date | Time |
|--|-------------|------|
| 1. 3100RIVERRD | 08/05/22 | 1341 |
| 2. Trip Blank | 08/05/22 | 1715 |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

Project Comments:

| Requisitioned By / Company Name | Date | Time |
|---------------------------------|----------|------|
| 1. <i>[Signature]</i> | 08/05/22 | 1715 |
| 3. <i>[Signature]</i> | | |
| 5 | | |
| 7 | | |
| 9 | | |

* G=Grab, C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; CI=Chemical

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

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

COC #:

ALS QU

3256971

Logged By: AMF
PM: SUB



Cooler Temp: Therm ID:

No. of Containers: Initial

Temp Taken By: AMF
 WO Temp (°C): 570
 Therm ID: ETC
 Receipt Info Completed By: Y N NA
 Cooler Custody Seal Intact: Y N NA
 Sample Custody Seal Intact: Y N NA
 Received on Ice: Y N NA
 Cooler & Samples Intact: Y N NA
 Correct Containers Provided: Y N NA
 Sample Label/COC Agree: Y N NA
 Adequate Sample Volumes: Y N NA
 VOA Headspace Present: Y N NA
 Voa Trip Blank: Y N NA
 NIS 4 Days?: Y N NA
 Rad Screen (uCi):
 Courier/Tracking #:
 SDWA Compliance: Y N NA
 PWSID: Y N NA
 WV Containers 0-6°C: Y N NA

ANALYSES/METHOD REQUESTED

| Container Type | AG | AN | AN | CG | PL | PL | PL | PL | PL | PL |
|---|-------|--------|--------|---------|--------|--------|--------|--------|--------|--------|
| Container Size | 40 ml | 125 ml | 250 ml | 40 ml | 125 ml | 125 ml | 125 ml | 500 ml | 500 ml | 500 ml |
| Preservative | HCl | H2SO4 | H2SO4 | Asc&HCl | H2SO4 | HNO3 | HNO3 | None | None | None |
| Matrix | | | | | | | | | | |
| Enter Number of Containers Per Sample or Field Results Below. | | | | | | | | | | |
| TOC | | | | | | | | | | |
| O-OH | | | | | | | | | | |
| TOX | | | | | | | | | | |
| 524 VOC | | | | | | | | | | |
| FM | | | | | | | | | | |
| NH3-N, COD | | | | | | | | | | |
| Dissolved Metals: Ca, Fe, Mg, Mn, K, Na | | | | | | | | | | |
| K, Na | | | | | | | | | | |
| Metals: Ca, Fe, Mg, Mn, K, Na | | | | | | | | | | |
| pH, TDS, NO2, NO3, Cl, SO4, F, TB, SpC | | | | | | | | | | |
| Alkalinity, HCO3 | | | | | | | | | | |

ALS Field Services: Pickup Labor Rental_Equipment
 Composite_Sampling Other:

| Standard | Special Processing | State Samples Collected In |
|-----------------------------------|--------------------------------|-----------------------------|
| <input type="checkbox"/> USACE | <input type="checkbox"/> USACE | <input type="checkbox"/> NY |
| <input type="checkbox"/> CLP-like | <input type="checkbox"/> Navy | <input type="checkbox"/> NJ |
| <input type="checkbox"/> USACE | | <input type="checkbox"/> PA |
| | | <input type="checkbox"/> NC |

Reportable to PADEP? Yes No Lab Special

PWSID #

EDDS: Format Type



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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

Analytical Results Report For **Lancaster County Solid Waste Authority**
Project 3rd QTR 2022-3106 RIVER RD
Workorder 3256970
Report ID 190624 on 8/29/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 05, 2022.

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):
Ashley Gichuki - Lancaster County Solid Waste Authority
Daniel Brown - Lancaster County Solid Waste Authority
Jordan Gallagher - Lancaster County Solid Waste Authority
Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

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

Susan Scherer (ALS Digital Signature)
Project Coordinator



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|--------------------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3256970001 | 3106 River Road, Conestoga, PA | Water | 08/05/2022 13:30 | 08/05/2022 17:15 | BGS | Analytical Laboratory Service |



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.
- 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 performed 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 | Reporting Detection Limit |
| 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.

| | |
|---|---|
| E | Result reported exceeds instrument calibration |
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO ₃ /L. |
| 2 | This sample was reran out of hold within the instrument's calibration range, for the analyte Nitrate-N, and confirms the initial in-hold reported result. |
| 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. |



Detected Results Summary

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3106 River Road, Conestoga, PA | Collected | 08/05/2022 13:30 |
| Lab Sample ID | 3256970001 | Lab Receipt | 08/05/2022 17:15 |

| Compound | Result | Units | RDL | Method | Flag |
|-----------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 6.24 | pH_Units | | Field | # |
| Specific Conductance, Field | 347 | umhos/cm | 1 | Field | # |
| Temperature | 15.40 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 38.1 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 39.0 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 14.2 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 14.1 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Dissolved | 0.038 | mg/L | 0.0050 | EPA 200.7 | # |
| Manganese, Total | 0.038 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 2.1 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 2.1 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 37.6 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 38.3 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 60 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 60 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 93.2 | mg/L | 5.0 | EPA 300.0 | # |
| Nitrate-N | 12.7 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 7.41 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 584 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 7.7 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 310 | mg/L | 25 | S2540C-11 | # |
| Total Organic Carbon (TOC) | 0.68 | mg/L | 0.50 | SM5310B-2011 | # |



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3106 River Road, Conestoga, PA | Collected | 08/05/2022 13:30 |
| Lab Sample ID | 3256970001 | Lab Receipt | 08/05/2022 17:15 |

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 6.24 | | pH_Units | | Field | 1 | 08/05/2022 13:30 | BGS | M |
| Specific Conductance, Field | 347 | | umhos/cm | 1 | Field | 1 | 08/05/2022 13:30 | BGS | M |
| Temperature | 15.40 | | Deg. C | | Field | 1 | 08/05/2022 13:30 | BGS | M |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 38.1 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 16:04 | SRT | E1 |
| Calcium, Total | 39.0 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/22/2022 17:01 | SRT | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/24/2022 16:04 | SRT | E1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/22/2022 17:01 | SRT | D1 |
| Magnesium, Dissolved | 14.2 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 16:04 | SRT | E1 |
| Magnesium, Total | 14.1 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/22/2022 17:01 | SRT | D1 |
| Manganese, Dissolved | 0.038 | | mg/L | 0.0050 | EPA 200.7 | 1 | 08/24/2022 16:04 | SRT | E1 |
| Manganese, Total | 0.038 | | mg/L | 0.0025 | EPA 200.7 | 1 | 08/22/2022 17:01 | SRT | D1 |
| Potassium, Dissolved | 2.1 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 16:04 | SRT | E1 |
| Potassium, Total | 2.1 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/22/2022 17:01 | SRT | D1 |
| Sodium, Dissolved | 37.6 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 16:04 | SRT | E1 |
| Sodium, Total | 38.3 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/22/2022 17:01 | SRT | D1 |

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 | 08/13/2022 14:58 | TMP | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:58 | TMP | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:58 | TMP | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:58 | TMP | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:58 | TMP | J |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:58 | TMP | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:58 | TMP | J |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:58 | TMP | J |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:58 | TMP | J |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:58 | TMP | J |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:58 | TMP | J |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:58 | TMP | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:58 | TMP | J |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:58 | TMP | J |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:58 | TMP | J |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:58 | TMP | J |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 90.4% | 70 - 130 | 08/13/2022 14:58 | |

WET CHEMISTRY



Results

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|--------|------|----------|-------|------------------|----------|--------------------|-----|------|
| Alkalinity, Bicarbonate | 60 | | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 03:02 | BXD | A |
| Alkalinity, Total | 60 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 03:02 | BXD | A |
| Ammonia-N | ND | ND | mg/L | 0.100 | ASTM D6919-09 | 10 | 08/11/2022 10:22 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/10/2022 14:47 | KMS | C |
| Chloride | 93.2 | | mg/L | 5.0 | EPA 300.0 | 5 | 08/19/2022 01:31 | M1D | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/06/2022 14:33 | M1D | A |
| Halogen, Total Organic (TOX) | ND | ND | ug/L | 20.0 | SW846 9020B | 1 | 08/09/2022 17:46 | PAG | I |
| Nitrate-N | 12.7 | E,2 | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 14:33 | M1D | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 14:33 | M1D | A |
| pH | 7.41 | 3 | pH_Units | | S4500HB-11 | 1 | 08/17/2022 03:02 | BXD | A |
| Phenolics | ND | ND | mg/L | 0.004 | EPA 420.4 | 1 | 08/11/2022 11:17 | AKH | H |
| Specific Conductance | 584 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/26/2022 16:49 | BXD | A |
| Sulfate | 7.7 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 14:33 | M1D | A |
| Total Dissolved Solids | 310 | | mg/L | 25 | S2540C-11 | 1 | 08/09/2022 08:44 | SMS | A |
| Total Organic Carbon (TOC) | 0.68 | | mg/L | 0.50 | SM5310B-2011 | 1 | 08/10/2022 04:28 | PAG | F |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 08/06/2022 04:41 | LXZ | A |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|------------|--------------------------------|-----------------|--------------------|-----------------|
| 3256970001 | 3106 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 524.2 | N/A | |
| | | ASTM D6919-09 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | 420.4/9066 | |
| | | S2540C-11 | N/A | |
| | | S4500HB-11 | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM5310B-2011 | N/A | |
| | | SW846 9020B | N/A | |



QUALITY CONTROL DATA CROSS REFERENCE TABLE

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|------------|--------------------------------|--------------------|------------|------------------|--------|-----------------|------------|
| 3256970001 | 3106 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | 869647 |
| | | EPA ACID | 873735 | 08/24/2022 14:57 | MO | EPA 200.7 | 873736 |
| | | EPA TRMD | 870593 | 08/11/2022 19:58 | ANN | EPA 200.7 | 873169 |
| | | N/A | N/A | N/A | | EPA 524.2 | 870954 |
| | | N/A | N/A | N/A | | ASTM D6919-09 | 870060 |
| | | N/A | N/A | N/A | | EPA 300.0 | 869566 |
| | | N/A | N/A | N/A | | EPA 300.0 | 872190 |
| | | N/A | N/A | N/A | | EPA 410.4 | 870085 |
| | | 420.4/9066 | 870188 | 08/10/2022 15:34 | AKH | EPA 420.4 | 870370 |
| | | N/A | N/A | N/A | | S2540C-11 | 869634 |
| | | N/A | N/A | N/A | | S4500HB-11 | 871363 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 869453 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 871363 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 874172 |
| | | N/A | N/A | N/A | | SM5310B-2011 | 869934 |
| N/A | N/A | N/A | | SW846 9020B | 869867 | | |



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301 Filling Mill Road • Middletown, PA 17057 • 717-944-5541 • Fax: 717-944-1430

Client Name: LCSWMA - Aaron Fry
Address: 3106 River Road
 Conestoga, PA 17516
Contact: Aaron Fry
Phone: (717) 669-6831

Project Name#: LCSWMA - Quarterly
Bill To: LCSWMA - Aaron Fry

TAT Normal-Standard TAT is 10-12 business days.
 Rush-Subject to ALS approval and surcharges.
Date Required: _____ **Approved By:** _____
Email? -Y -N
Fax? -Y -N

Sample Description/Location
 (as it will appear on the lab report)

| Sample Date | Time |
|-------------|------|
| 08/05/22 | 1330 |
| 08/005/22 | 1745 |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

Project Comments:

Relinquished By / Company Name
 1 *[Signature]* / ALS
 2
 3
 4
 5
 6
 7
 8
 9
 10

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

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

| Container Type | AG | AN | AN | CG | PL | PL | PL | PL |
|----------------|-------|--------|--------|---------|--------|--------|--------|--------|
| Container Size | 40 ml | 125 ml | 250 ml | 40 ml | 250 ml | 125 ml | 125 ml | 500 ml |
| Preservative | HCl | H2SO4 | H2SO4 | Asc&HCl | H2SO4 | HNO3 | HNO3 | None |

ANALYSES/METHOD REQUESTED

| Matrix | TOC | O-OH | TOX | 524 VOC | FM | NH3-N, COD | Dissolved Metals: Ca, Fe, Mg, Mn, K, Na | K, Na | Metals: Ca, Fe, Mg, Mn, K, Na | PH, TDS, NO2, NO3, Cl, SO4, F, Pb, SpC | Alkalinity, HCO3 |
|----------|-----|------|-----|---------|----|------------|---|-------|-------------------------------|--|------------------|
| * Matrix | 2 | 1 | 2 | 3 | X | 1 | 1 | 1 | 1 | 1 | 1 |

Enter Number of Containers Per Sample or Field Results Below.

| Matrix | TOC | O-OH | TOX | 524 VOC | FM | NH3-N, COD | Dissolved Metals: Ca, Fe, Mg, Mn, K, Na | K, Na | Metals: Ca, Fe, Mg, Mn, K, Na | PH, TDS, NO2, NO3, Cl, SO4, F, Pb, SpC | Alkalinity, HCO3 |
|--------|-----|------|-----|---------|----|------------|---|-------|-------------------------------|--|------------------|
| G DW | 2 | 1 | 2 | 3 | X | 1 | 1 | 1 | 1 | 1 | 1 |
| G DW | | | | 2 | | | | | | | |
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| Standard | Deliverables | Reportable to PADEP? | Sample Disposal | State Samples Collected In |
|-----------------------------------|-----------------------------------|--|--|--|
| <input type="checkbox"/> Standard | <input type="checkbox"/> CLP-like | <input type="checkbox"/> Yes <input type="checkbox"/> No | USACE <input type="checkbox"/> Navy <input type="checkbox"/> | NY <input type="checkbox"/> NJ <input type="checkbox"/> PA <input checked="" type="checkbox"/> NC <input type="checkbox"/> |
| <input type="checkbox"/> USACE | <input type="checkbox"/> | <input type="checkbox"/> | Lab <input checked="" type="checkbox"/> Special <input type="checkbox"/> | |

COC # **3256970**
 Logged By: AHF
 PM: SJB
 1 of 1

Therm ID: _____
 Cooler Temp: _____
 Temp Taken By: _____
 WO Temp (°C): _____
 Therm ID: 570

Receipt Info Completed By: *EJC*
 Cooler Custody Seal Intact: Y N MA
 Sample Custody Seal Intact: Y N MA
 Received on Ice: Y N MA
 Cooler & Samples Intact: Y N MA
 Correct Containers Provided: Y N MA
 Sample Label/COC Agree: Y N MA
 Adequate Sample Volumes: Y N MA
 VOA Headspace Present: Y N MA
 Voa Trip Blank: Y N MA
 NLS 4 Days?: Y N MA
 Rad Screen (uCi): Y N MA
 Courier/Tracking #: _____
 SDWA Compliance: Y N MA
 PWSID: Y N MA
 WV Containers 0-6°C: Y N MA

ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other:

EDDS: Format Type: _____
 PWSID #: _____

* G=Grab, C=Composite
 **Matrix - Al=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SQ=Soil; MP=Mine; MUM=Municipal



301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com

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

Analytical Results Report For

Lancaster County Solid Waste Authority

Project 3RD QTR 2022-3125 RIVER RD
Workorder 3256969
Report ID 190639 on 8/29/2022

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Aug 05, 2022.

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):

- Ashley Gichuki - Lancaster County Solid Waste Authority
- Daniel Brown - Lancaster County Solid Waste Authority
- Jordan Gallagher - Lancaster County Solid Waste Authority
- Jeff Musser - Lancaster County Solid Waste Authority

Susan Scherer

Susan Scherer
Project Coordinator

(ALS Digital Signature)

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



Sample Summary

| <u>Lab ID</u> | <u>Sample ID</u> | <u>Matrix</u> | <u>Date Collected</u> | <u>Date Received</u> | <u>Collector</u> | <u>Collection Company</u> |
|---------------|--------------------------------|---------------|-----------------------|----------------------|------------------|-------------------------------|
| 3256969001 | 3125 River Road, Conestoga, PA | Water | 08/05/2022 13:15 | 08/05/2022 17:15 | BGS | Analytical Laboratory Service |
| 3256969002 | Field Blank | Water | 08/05/2022 15:14 | 08/05/2022 17:15 | BGS | Analytical Laboratory Service |
| 3256969003 | Trip Blank | Water | 08/05/2022 17:15 | 08/05/2022 17:15 | BGS | Analytical Laboratory Service |



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.
- 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 performed 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 | Reporting Detection Limit |
| 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 QC sample type MS for method 420.4/9066 was outside the control limits for the analyte Phenolics. The % Recovery was reported as 142 and the control limits were 90 to 110. |
| 4 | 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. |



Detected Results Summary

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3125 River Road, Conestoga, PA | Collected | 08/05/2022 13:15 |
| Lab Sample ID | 3256969001 | Lab Receipt | 08/05/2022 17:15 |

| Compound | Result | Units | RDL | Method | Flag |
|-----------------------------|--------|----------|--------|--------------|------|
| FIELD PARAMETERS | | | | | |
| pH, Field (SM4500B) | 7.63 | pH_Units | | Field | # |
| Specific Conductance, Field | 694 | umhos/cm | 1 | Field | # |
| Temperature | 15.30 | Deg. C | | Field | # |
| METALS | | | | | |
| Calcium, Dissolved | 8.2 | mg/L | 0.10 | EPA 200.7 | # |
| Calcium, Total | 8.3 | mg/L | 0.050 | EPA 200.7 | # |
| Magnesium, Dissolved | 0.95 | mg/L | 0.10 | EPA 200.7 | # |
| Magnesium, Total | 0.93 | mg/L | 0.050 | EPA 200.7 | # |
| Manganese, Total | 0.0038 | mg/L | 0.0025 | EPA 200.7 | # |
| Potassium, Dissolved | 3.9 | mg/L | 0.50 | EPA 200.7 | # |
| Potassium, Total | 4.0 | mg/L | 0.25 | EPA 200.7 | # |
| Sodium, Dissolved | 137 | mg/L | 0.50 | EPA 200.7 | # |
| Sodium, Total | 135 | mg/L | 0.25 | EPA 200.7 | # |
| WET CHEMISTRY | | | | | |
| Alkalinity, Bicarbonate | 178 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 178 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 91.8 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 4.7 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 8.04 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 710 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 11.7 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 366 | mg/L | 25 | S2540C-11 | # |
| Total Organic Carbon (TOC) | 0.75 | mg/L | 0.50 | SM5310B-2011 | # |



Results

Client Sample ID 3125 River Road, Conestoga, PA
 Lab Sample ID 3256969001

Collected 08/05/2022 13:15
 Lab Receipt 08/05/2022 17:15

FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|-----------------------------|--------|------|----------|-----|--------|----------|--------------------|-----|------|
| pH, Field (SM4500B) | 7.63 | | pH_Units | | Field | 1 | 08/05/2022 13:15 | BGS | N |
| Specific Conductance, Field | 694 | | umhos/cm | 1 | Field | 1 | 08/05/2022 13:15 | BGS | N |
| Temperature | 15.30 | | Deg. C | | Field | 1 | 08/05/2022 13:15 | BGS | N |

METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|----------------------|--------|------|-------|--------|-----------|----------|--------------------|-----|------|
| Calcium, Dissolved | 8.2 | 4 | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 15:54 | SRT | E1 |
| Calcium, Total | 8.3 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/22/2022 16:43 | SRT | D1 |
| Iron, Dissolved | ND | ND | mg/L | 0.060 | EPA 200.7 | 1 | 08/24/2022 15:54 | SRT | E1 |
| Iron, Total | ND | ND | mg/L | 0.030 | EPA 200.7 | 1 | 08/22/2022 16:43 | SRT | D1 |
| Magnesium, Dissolved | 0.95 | | mg/L | 0.10 | EPA 200.7 | 1 | 08/24/2022 15:54 | SRT | E1 |
| Magnesium, Total | 0.93 | | mg/L | 0.050 | EPA 200.7 | 1 | 08/22/2022 16:43 | SRT | D1 |
| Manganese, Dissolved | ND | ND | mg/L | 0.0050 | EPA 200.7 | 1 | 08/24/2022 15:54 | SRT | E1 |
| Manganese, Total | 0.0038 | | mg/L | 0.0025 | EPA 200.7 | 1 | 08/22/2022 16:43 | SRT | D1 |
| Potassium, Dissolved | 3.9 | | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 15:54 | SRT | E1 |
| Potassium, Total | 4.0 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/22/2022 16:43 | SRT | D1 |
| Sodium, Dissolved | 137 | 4 | mg/L | 0.50 | EPA 200.7 | 1 | 08/24/2022 15:54 | SRT | E1 |
| Sodium, Total | 135 | | mg/L | 0.25 | EPA 200.7 | 1 | 08/22/2022 16:43 | SRT | D1 |

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 | 08/13/2022 14:32 | TMP | K |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:32 | TMP | K |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:32 | TMP | K |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:32 | TMP | K |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:32 | TMP | K |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:32 | TMP | K |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:32 | TMP | K |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:32 | TMP | K |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:32 | TMP | K |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:32 | TMP | K |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:32 | TMP | K |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:32 | TMP | K |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:32 | TMP | K |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:32 | TMP | K |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:32 | TMP | K |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/13/2022 14:32 | TMP | K |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 91.4% | 70 - 130 | 08/13/2022 14:32 | |

WET CHEMISTRY



Results

| | | | |
|------------------|--------------------------------|-------------|------------------|
| Client Sample ID | 3125 River Road, Conestoga, PA | Collected | 08/05/2022 13:15 |
| Lab Sample ID | 3256969001 | Lab Receipt | 08/05/2022 17:15 |

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|------------------------------|--------|------|----------|-------|------------------|----------|--------------------|-----|------|
| Alkalinity, Bicarbonate | 178 | | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 02:52 | BXD | A |
| Alkalinity, Total | 178 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 08/17/2022 02:52 | BXD | A |
| Ammonia-N | ND | ND | mg/L | 0.100 | ASTM D6919-09 | 10 | 08/11/2022 01:46 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 08/10/2022 14:47 | KMS | C |
| Chloride | 91.8 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 16:28 | M1D | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 08/06/2022 16:28 | M1D | A |
| Halogen, Total Organic (TOX) | ND | ND | ug/L | 20.0 | SW846 9020B | 1 | 08/09/2022 17:46 | PAG | I |
| Nitrate-N | 4.7 | | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 16:28 | M1D | A |
| Nitrite-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 08/06/2022 16:28 | M1D | A |
| pH | 8.04 | 2 | pH_Units | | S4500HB-11 | 1 | 08/17/2022 02:52 | BXD | A |
| Phenolics | ND | ND,3 | mg/L | 0.004 | EPA 420.4 | 1 | 08/11/2022 11:11 | AKH | H |
| Specific Conductance | 710 | | umhos/cm | 5 | SM2510B-2011 | 1 | 08/26/2022 16:49 | BXD | A |
| Sulfate | 11.7 | | mg/L | 2.0 | EPA 300.0 | 2 | 08/06/2022 16:28 | M1D | A |
| Total Dissolved Solids | 366 | | mg/L | 25 | S2540C-11 | 1 | 08/09/2022 08:44 | SMS | A |
| Total Organic Carbon (TOC) | 0.75 | | mg/L | 0.50 | SM5310B-2011 | 1 | 08/10/2022 04:28 | PAG | F |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 08/06/2022 04:41 | LXZ | A |



Results

| | | | |
|------------------|-------------|-------------|------------------|
| Client Sample ID | Field Blank | Collected | 08/05/2022 15:14 |
| Lab Sample ID | 3256969002 | Lab Receipt | 08/05/2022 17:15 |

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 | 08/17/2022 13:44 | TMP | A |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 13:44 | TMP | A |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 13:44 | TMP | A |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 13:44 | TMP | A |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 13:44 | TMP | A |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 13:44 | TMP | A |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 13:44 | TMP | A |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 13:44 | TMP | A |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 13:44 | TMP | A |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 13:44 | TMP | A |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 13:44 | TMP | A |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 13:44 | TMP | A |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 13:44 | TMP | A |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 13:44 | TMP | A |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 13:44 | TMP | A |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 13:44 | TMP | A |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 94.2% | 70 – 130 | 08/17/2022 13:44 | |



Results

| | | | |
|------------------|------------|-------------|------------------|
| Client Sample ID | Trip Blank | Collected | 08/05/2022 17:15 |
| Lab Sample ID | 3256969003 | Lab Receipt | 08/05/2022 17:15 |

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 | 08/17/2022 14:10 | TMP | A |
| 1,1-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 14:10 | TMP | A |
| 1,1-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 14:10 | TMP | A |
| 1,2-Dibromoethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 14:10 | TMP | A |
| 1,2-Dichloroethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 14:10 | TMP | A |
| Benzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 14:10 | TMP | A |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 14:10 | TMP | A |
| Ethylbenzene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 14:10 | TMP | A |
| Methylene Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 14:10 | TMP | A |
| Tetrachloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 14:10 | TMP | A |
| Toluene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 14:10 | TMP | A |
| Total Xylenes | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 14:10 | TMP | A |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 14:10 | TMP | A |
| Trichloroethene | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 14:10 | TMP | A |
| Trichlorofluoromethane | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 14:10 | TMP | A |
| Vinyl Chloride | ND | ND | ug/L | 0.50 | EPA 524.2 | 1 | 08/17/2022 14:10 | TMP | A |

SURROGATES

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|----------------------|----------|----------|-----------|--------------------|------------|
| 4-Bromofluorobenzene | 460-00-4 | 92.8% | 70 – 130 | 08/17/2022 14:10 | |



Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|-------------|--------------------------------|-----------------|--------------------|-----------------|
| 3256969001 | 3125 River Road, Conestoga, PA | Field | N/A | |
| | | EPA 200.7 | EPA TRMD | |
| | | EPA 200.7 | EPA ACID | |
| | | EPA 524.2 | N/A | |
| | | ASTM D6919-09 | N/A | |
| | | EPA 300.0 | N/A | |
| | | EPA 410.4 | N/A | |
| | | EPA 420.4 | 420.4/9066 | |
| | | S2540C-11 | N/A | |
| | | S4500HB-11 | N/A | |
| | | SM2130B-2011 | N/A | |
| | | SM2320B-2011 | N/A | |
| | | SM2510B-2011 | N/A | |
| | | SM5310B-2011 | N/A | |
| SW846 9020B | N/A | | | |
| 3256969002 | Field Blank | EPA 524.2 | N/A | |
| 3256969003 | 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 |
|------------|--------------------------------|--------------------|------------|------------------|--------|-----------------|------------|
| 3256969001 | 3125 River Road, Conestoga, PA | N/A | N/A | N/A | | Field | 869647 |
| | | EPA TRMD | 870593 | 08/11/2022 19:58 | ANN | EPA 200.7 | 873169 |
| | | EPA ACID | 873735 | 08/24/2022 14:57 | MO | EPA 200.7 | 873736 |
| | | N/A | N/A | N/A | | EPA 524.2 | 870954 |
| | | N/A | N/A | N/A | | ASTM D6919-09 | 870055 |
| | | N/A | N/A | N/A | | EPA 300.0 | 869566 |
| | | N/A | N/A | N/A | | EPA 410.4 | 870085 |
| | | 420.4/9066 | 870188 | 08/10/2022 15:34 | AKH | EPA 420.4 | 870370 |
| | | N/A | N/A | N/A | | S2540C-11 | 869634 |
| | | N/A | N/A | N/A | | S4500HB-11 | 871363 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 869453 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 871363 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 874172 |
| | | N/A | N/A | N/A | | SM5310B-2011 | 869934 |
| N/A | N/A | N/A | | SW846 9020B | 869867 | | |
| 3256969002 | Field Blank | N/A | N/A | N/A | | EPA 524.2 | 871754 |
| 3256969003 | Trip Blank | N/A | N/A | N/A | | EPA 524.2 | 871754 |



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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3256969

Logged By: AMF
PM: SJB

1 of 1

Client Name: LCSWMA - Christian C. Beck

Address: 3125 River Road
Conestoga, PA 17516

Contact: Christian C. Beck

Phone#: (717) 871-0448

Project Name#: LCSWMA - Quarterly

Bill To: Lancaster County Solid Waste MA

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

Date Required: _____ Approved By: _____

Email? -Y -N

Fax? -Y -N

Sample Description/Location
(as it will appear on the lab report)

| Sample Date | Time |
|-------------|------|
| 08/05/22 | 1315 |
| 08/05/22 | 1514 |
| 08/05/22 | 1715 |

Project Comments:

LOGGED BY (signature):
REVIEWED BY (signature):

| Date | Time | Received By / Company Name |
|----------|------|----------------------------|
| 08-22-22 | 1752 | ALS |
| | 4 | |
| | 6 | |
| | 8 | |
| | 10 | |

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OL=Oil; SL=Sludge; SO=Soil; WP=Water; MM=Material

| Container Type | AG | AN | AN | CG | PL | PL | PL |
|----------------|-------|--------|--------|-------|--------|--------|--------|
| Container Size | 40 ml | 125 ml | 250 ml | 40 ml | 125 ml | 125 ml | 500 ml |
| Preservative | HCl | H2SO4 | H2SO4 | HCl | H2SO4 | HNO3 | None |

ANALYSES/METHOD REQUESTED

| Matrix | TOC | O-OH | TOX | 524 VOC | 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, Pb, Spc | Alkalinity, HCO3 |
|--------|-----|------|-----|---------|----|------------|---|-------------------------------|--|------------------|
| G | 2 | 1 | 2 | 3 | X | 1 | 1 | 1 | 1 | |
| DW | | | | | | | | | | |
| G | | | | 2 | | | | | | |
| DW | | | | | | | | | | |
| G | | | | 2 | | | | | | |
| DW | | | | | | | | | | |

Enter Number of Containers Per Sample or Field Results Below.

| Temp Taken By: | WO Temp (°C) | Therm ID: | AWF |
|----------------|--------------|-----------|-----|
| | | 570 | |

Receipt Info Completed By: EJC
Cooler Custody Seal Intact: Y N N N A
Sample Custody Seal Intact: Y N N N A
Received on Ice: Y N N N A
Cooler & Samples Intact: Y N N N A
Correct Containers Provided: Y N N N A
Sample Label/COC Agree: Y N N N A
Adequate Sample Volumes: Y N N N A
VOA Headspace Present: Y N N N A
Voa Trip Blank: Y N N N A
NIS 4 Days: Y N N N A
Rad Screen (uCi): Y N N N A
Courier/Tracking #: _____

ALS Field Services: Pickup Labor
 Composite_Sampling Rental_Equipment
 Other:

| Standard | Deliverables | Special Processing | State Samples Collected In |
|---|--|--|--|
| <input type="checkbox"/> Standard | <input type="checkbox"/> USACE | <input type="checkbox"/> USACE | <input type="checkbox"/> NY |
| <input type="checkbox"/> GLP-like | <input type="checkbox"/> USACE | <input type="checkbox"/> Navy | <input type="checkbox"/> NJ |
| <input type="checkbox"/> Reportable to PADEP? | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Special | <input checked="" type="checkbox"/> PA <input type="checkbox"/> NC |
| <input type="checkbox"/> PWSID # | | | |
| <input type="checkbox"/> EDDS: Format Type: | | | |