2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
06/15/2023
DEP USE ONLY
Date Received

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

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

General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: LCSWMA

Address: 3044 RIVER ROAD

Phone No.:

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

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

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

Total Well Depth: ft.

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

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

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

Sample Date:(mm/dd/yy) 05/05/2023 Sample Collection Time: 11:30 AM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number) 301 Fulling Mill Road

Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s) 22-293

Lab Analysis Date 05/24/2023

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 05/05/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.177	SM4500D
BICARBONATE ALKALINITY	13	SM20-2321
CALCIUM, TOTAL	16.5	EPA 200.7
CALCIUM, DISSOLVED	15.7	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	10.7	EPA 200.7
MAGNESIUM, DISSOLVED	10.4	EPA 200.7
MANGANESE, TOTAL (ug/l)	15	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	14	EPA 200.7
NITRATE-NITROGEN	17.8	EPA 300

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 05/05/2023

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)	6.93	FIELD
pH-LAB (SU)	7.03	SM4500B
POTASSIUM, TOTAL	2	EPA 200.7
POTASSIUM, DISSOLVED	2	EPA 200.7
SODIUM, TOTAL	9.3	EPA 200.7
SODIUM, DISSOLVED	8.6	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	257	FIELD
SPEC. COND., LAB (umhos/cm)	252	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	13	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	206	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	11	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: 05/05/2023

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

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

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
06/15/2023
DEP USE ONLY
Date Received

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

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General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: MILLER

Address: 3052 RIVER ROAD

Phone No.:

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

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

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

Total Well Depth: ft.

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

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

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

Sample Date:(mm/dd/yy) 05/05/2023 Sample Collection Time: 11:40 AM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number) 301 Fulling Mill Road

Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s) 22-293

Lab Analysis Date 05/18/2023

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS MILLER

Sample Date: 05/05/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.169	SM4500D
BICARBONATE ALKALINITY	7	SM20-2321
CALCIUM, TOTAL	19.7	EPA 200.7
CALCIUM, DISSOLVED	18.1	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	19	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	8.7	EPA 200.7
MAGNESIUM, DISSOLVED	8.3	EPA 200.7
MANGANESE, TOTAL (ug/l)	20	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	20	EPA 200.7
NITRATE-NITROGEN	17.7	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 MILLER

Sample Date: 05/05/2023

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)	6.54	FIELD
pH-LAB (SU)	6.68	SM4500B
POTASSIUM, TOTAL	1.9	EPA 200.7
POTASSIUM, DISSOLVED	1.8	EPA 200.7
SODIUM, TOTAL	8.8	EPA 200.7
SODIUM, DISSOLVED	8	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	249	FIELD
SPEC. COND., LAB (umhos/cm)	245	EPA 120.1
SULFATE	2.8	EPA 300
ALKALINITY	7	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	184	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	4 ND	EPA 420.4
TURBIDITY (NTU)	0.4	SM 2130B

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS MILLER

Sample Date: 05/05/2023

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

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

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
06/15/2023
DEP USE ONLY
Date Received

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

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General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: LCSWMA

Address: 3056 RIVER ROAD

Phone No.:

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

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

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

Total Well Depth: ft.

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

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

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

Sample Date:(mm/dd/yy) 05/05/2023 Sample Collection Time: 11:50 AM

Laboratory(ies) Performing Analysis ALS Environmental

(include address and phone number) 301 Fulling Mill Road

Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s) 22-293

Lab Analysis Date 05/18/2023

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 05/05/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.101	SM4500D
BICARBONATE ALKALINITY	9	SM20-2321
CALCIUM, TOTAL	13.4	EPA 200.7
CALCIUM, DISSOLVED	12	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	21.6	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	11.8	EPA 200.7
MAGNESIUM, DISSOLVED	11.1	EPA 200.7
MANGANESE, TOTAL (ug/l)	89	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	85	EPA 200.7
NITRATE-NITROGEN	16.6	EPA 300

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 05/05/2023

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)	6.63	FIELD
pH-LAB (SU)	6.71	SM4500B
POTASSIUM, TOTAL	2.5	EPA 200.7
POTASSIUM, DISSOLVED	2.4	EPA 200.7
SODIUM, TOTAL	9.1	EPA 200.7
SODIUM, DISSOLVED	8.2	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	247	FIELD
SPEC. COND., LAB (umhos/cm)	240	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	9	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	170	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: 05/05/2023

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

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

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
06/15/2023
DEP USE ONLY
Date Received

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

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General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: LCSWMA

Address: 3060 RIVER ROAD

Phone No.:

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

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

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

Total Well Depth: ft.

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

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

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

Sample Date:(mm/dd/yy) 05/05/2023 Sample Collection Time: 12:00 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 05/22/2023

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 05/05/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.159	SM4500D
BICARBONATE ALKALINITY	5 ND	SM20-2321
CALCIUM, TOTAL	12.9	EPA 200.7
CALCIUM, DISSOLVED	12.4	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	18.1	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	50	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	11.5	EPA 200.7
MAGNESIUM, DISSOLVED	11	EPA 200.7
MANGANESE, TOTAL (ug/l)	120	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	110	EPA 200.7
NITRATE-NITROGEN	16.4	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 LCSWMA

Sample Date: 05/05/2023

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)	6.51	FIELD
pH-LAB (SU)	6.57	SM4500B
POTASSIUM, TOTAL	2.8	EPA 200.7
POTASSIUM, DISSOLVED	2.7	EPA 200.7
SODIUM, TOTAL	9.1	EPA 200.7
SODIUM, DISSOLVED	8.4	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	251	FIELD
SPEC. COND., LAB (umhos/cm)	241	EPA 120.1
SULFATE	9.2	EPA 300
ALKALINITY	5 ND	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	158	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: 05/05/2023

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

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

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
06/15/2023
DEP USE ONLY
Date Received

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

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General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: SENSENICH

Address: 3076 RIVER ROAD

Phone No.:

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

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

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

Total Well Depth: ft.

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

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

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

Sample Date:(mm/dd/yy) 05/05/2023 Sample Collection Time: 12:10 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 05/18/2023

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS SENSENICH

Sample Date: 05/05/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.105	SM4500D
BICARBONATE ALKALINITY	7	SM20-2321
CALCIUM, TOTAL	15.7	EPA 200.7
CALCIUM, DISSOLVED	14.3	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	54.2	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	8.8	EPA 200.7
MAGNESIUM, DISSOLVED	8.4	EPA 200.7
MANGANESE, TOTAL (ug/l)	170	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	170	EPA 200.7
NITRATE-NITROGEN	9.3	EPA 300

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS SENSENICH

Sample Date: 05/05/2023

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)	6.57	FIELD
pH-LAB (SU)	6.61	SM4500B
POTASSIUM, TOTAL	3.7	EPA 200.7
POTASSIUM, DISSOLVED	3.5	EPA 200.7
SODIUM, TOTAL	25.4	EPA 200.7
SODIUM, DISSOLVED	23.9	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	334	FIELD
SPEC. COND., LAB (umhos/cm)	323	EPA 120.1
SULFATE	11.7	EPA 300
ALKALINITY	7	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	210	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 SENSENICH

Sample Date: 05/05/2023

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

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

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
06/15/2023
DEP USE ONLY
Date Received

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

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

General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: LCSWMA

Address: 3079 RIVER ROAD

Phone No.:

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

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

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

Total Well Depth: ft.

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

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

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

Sample Date:(mm/dd/yy) 05/05/2023 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 05/18/2023

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 05/05/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.232	SM4500D
BICARBONATE ALKALINITY	24	SM20-2321
CALCIUM, TOTAL	12.1	EPA 200.7
CALCIUM, DISSOLVED	10.9	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	33.2	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	6.2	EPA 200.7
MAGNESIUM, DISSOLVED	5.8	EPA 200.7
MANGANESE, TOTAL (ug/l)	35	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	34	EPA 200.7
NITRATE-NITROGEN	1.1	EPA 300

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 05/05/2023

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)	7.22	FIELD
pH-LAB (SU)	7.17	SM4500B
POTASSIUM, TOTAL	2.1	EPA 200.7
POTASSIUM, DISSOLVED	2	EPA 200.7
SODIUM, TOTAL	14.3	EPA 200.7
SODIUM, DISSOLVED	13.2	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	209	FIELD
SPEC. COND., LAB (umhos/cm)	197	EPA 120.1
SULFATE	9.9	EPA 300
ALKALINITY	24	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	129	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: 05/05/2023

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

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

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
06/15/2023
DEP USE ONLY
Date Received

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

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

General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: WEBER

Address: 3088 RIVER ROAD

Phone No.:

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

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

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

Total Well Depth: ft.

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

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

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

Sample Date:(mm/dd/yy) 05/05/2023 Sample Collection Time: 12:40 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 05/22/2023

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS WEBER

Sample Date: 05/05/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.216	SM4500D
BICARBONATE ALKALINITY	141	SM20-2321
CALCIUM, TOTAL	0.18	EPA 200.7
CALCIUM, DISSOLVED	0.55	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	251	EPA 300
FLUORIDE	0.5 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	0.05 ND	EPA 200.7
MAGNESIUM, DISSOLVED	0.1 ND	EPA 200.7
MANGANESE, TOTAL (ug/l)	2.5 ND	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	5 ND	EPA 200.7
NITRATE-NITROGEN	4.9	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: 05/05/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	2.5 ND	EPA 300
pH-FIELD (SU)	7.89	FIELD
pH-LAB (SU)	7.99	SM4500B
POTASSIUM, TOTAL	2.8	EPA 200.7
POTASSIUM, DISSOLVED	2.7	EPA 200.7
SODIUM, TOTAL	231	EPA 200.7
SODIUM, DISSOLVED	224	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	1159	FIELD
SPEC. COND., LAB (umhos/cm)	1150	EPA 120.1
SULFATE	5 ND	EPA 300
ALKALINITY	141	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	616	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: 05/05/2023

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

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

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
06/15/2023
DEP USE ONLY
Date Received

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

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General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: KIRCHNER

Address: 3100 RIVER ROAD

Phone No.:

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

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

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

Total Well Depth: ft.

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

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

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

Sample Date:(mm/dd/yy) 05/05/2023 Sample Collection Time: 12:55 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 05/22/2023

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS KIRCHNER

Sample Date: 05/05/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.238	SM4500D
BICARBONATE ALKALINITY	27	SM20-2321
CALCIUM, TOTAL	16.5	EPA 200.7
CALCIUM, DISSOLVED	15.7	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	47.9	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	7.7	EPA 200.7
MAGNESIUM, DISSOLVED	7.3	EPA 200.7
MANGANESE, TOTAL (ug/l)	11	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	11	EPA 200.7
NITRATE-NITROGEN	3.1	EPA 300

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS KIRCHNER

Sample Date: 05/05/2023

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)	7.09	FIELD
pH-LAB (SU)	7.04	SM4500B
POTASSIUM, TOTAL	1.8	EPA 200.7
POTASSIUM, DISSOLVED	1.7	EPA 200.7
SODIUM, TOTAL	18.9	EPA 200.7
SODIUM, DISSOLVED	17.5	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	261	FIELD
SPEC. COND., LAB (umhos/cm)	266	EPA 120.1
SULFATE	7.4	EPA 300
ALKALINITY	27	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	162	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 KIRCHNER

Sample Date: 05/05/2023

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

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

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
06/15/2023
DEP USE ONLY
Date Received

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

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General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: FRY

Address: 3106 RIVER ROAD

Phone No.:

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

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

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

Total Well Depth: ft.

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

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

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

Sample Date:(mm/dd/yy) 05/05/2023 Sample Collection Time: 1:20 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 05/22/2023

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS FRY

Sample Date: 05/05/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.196	SM4500D
BICARBONATE ALKALINITY	15	SM20-2321
CALCIUM, TOTAL	21.4	EPA 200.7
CALCIUM, DISSOLVED	20.7	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	13	EPA 200.7
MAGNESIUM, DISSOLVED	12.5	EPA 200.7
MANGANESE, TOTAL (ug/l)	37	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	36	EPA 200.7
NITRATE-NITROGEN	9.3	EPA 300

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS FRY

Sample Date: 05/05/2023

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	FIELD
pH-LAB (SU)	6.89	SM4500B
POTASSIUM, TOTAL	2.3	EPA 200.7
POTASSIUM, DISSOLVED	2.3	EPA 200.7
SODIUM, TOTAL	40.4	EPA 200.7
SODIUM, DISSOLVED	39.2	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	457	FIELD
SPEC. COND., LAB (umhos/cm)	462	EPA 120.1
SULFATE	7.1	EPA 300
ALKALINITY	15	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	298	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 FRY

Sample Date: 05/05/2023

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

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

T Please indicate detection limit if analyte is not detected.

2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
06/15/2023
DEP USE ONLY
Date Received

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

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

General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: BECK

Address: 3125 RIVER ROAD

Phone No.:

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

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

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

Total Well Depth: ft.

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

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

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

Sample Date:(mm/dd/yy) 05/05/2023 Sample Collection Time: 1:40 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 05/22/2023

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

Comments:

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS BECK

Sample Date: 05/05/2023

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.21	SM4500D
BICARBONATE ALKALINITY	169	SM20-2321
CALCIUM, TOTAL	0.68	EPA 200.7
CALCIUM, DISSOLVED	0.65	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	79.5	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	0.29	EPA 200.7
MAGNESIUM, DISSOLVED	0.27	EPA 200.7
MANGANESE, TOTAL (ug/l)	2.5 ND	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	5 ND	EPA 200.7
NITRATE-NITROGEN	4.1	EPA 300

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS BECK

Sample Date: 05/05/2023

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)	8.01	FIELD
pH-LAB (SU)	8.11	SM4500B
POTASSIUM, TOTAL	3.8	EPA 200.7
POTASSIUM, DISSOLVED	3.6	EPA 200.7
SODIUM, TOTAL	146	EPA 200.7
SODIUM, DISSOLVED	141	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	706	FIELD
SPEC. COND., LAB (umhos/cm)	691	EPA 120.1
SULFATE	9	EPA 300
ALKALINITY	169	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	390	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 BECK

Sample Date: 05/05/2023

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 2ND QTR 2023-3044 RIVER RD
Workorder 3301822
Report ID 246911 on 5/25/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 05, 2023.

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.

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

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3301822001	3044 River Road, Conestoga, PA	Water	05/05/2023 11:30	05/05/2023 16:25	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 preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.

Detected Results Summary

Client Sample ID	3044 River Road, Conestoga, PA	Collected	05/05/2023 11:30
Lab Sample ID	3301822001	Lab Receipt	05/05/2023 16:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.93	pH_Units		Field	#
Specific Conductance, Field	257	umhos/cm	1	Field	#
Temperature	14.28	Deg. C		Field	#
METALS					
Calcium, Dissolved	15.7	mg/L	0.10	EPA 200.7	#
Calcium, Total	16.5	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	10.4	mg/L	0.10	EPA 200.7	#
Magnesium, Total	10.7	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.014	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.015	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.0	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.0	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	8.6	mg/L	0.50	EPA 200.7	#
Sodium, Total	9.3	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	13	mg/L	5	SM2320B-2011	#
Alkalinity, Total	13	mg/L	5	SM2320B-2011	#
Ammonia-N	0.177	mg/L	0.100	ASTM D6919-17	#
Chloride	17.3	mg/L	2.0	EPA 300.0	#
Nitrate-N	17.8	mg/L	1.0	EPA 300.0	#
pH	7.03	pH_Units		S4500HB-11	#
Specific Conductance	252	umhos/cm	5	SM2510B-2011	#
Total Dissolved Solids	206	mg/L	25	SM2540C-15	#
Turbidity	11	NTU	0.30	SM2130B-2011	#

Results

Client Sample ID	3044 River Road, Conestoga, PA	Collected	05/05/2023 11:30
Lab Sample ID	3301822001	Lab Receipt	05/05/2023 16:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.93		pH_Units		Field	1	05/05/2023 11:30	BGS	N
Specific Conductance, Field	257		umhos/cm	1	Field	1	05/05/2023 11:30	BGS	N
Temperature	14.28		Deg. C		Field	1	05/05/2023 11:30	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	15.7		mg/L	0.10	EPA 200.7	1	05/17/2023 17:19	SRT	E1
Calcium, Total	16.5		mg/L	0.050	EPA 200.7	1	05/12/2023 12:14	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	05/17/2023 17:19	SRT	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	05/12/2023 12:14	SRT	D1
Magnesium, Dissolved	10.4		mg/L	0.10	EPA 200.7	1	05/17/2023 17:19	SRT	E1
Magnesium, Total	10.7		mg/L	0.050	EPA 200.7	1	05/12/2023 12:14	SRT	D1
Manganese, Dissolved	0.014		mg/L	0.0050	EPA 200.7	1	05/17/2023 17:19	SRT	E1
Manganese, Total	0.015		mg/L	0.0025	EPA 200.7	1	05/12/2023 12:14	SRT	D1
Potassium, Dissolved	2.0		mg/L	0.50	EPA 200.7	1	05/17/2023 17:19	SRT	E1
Potassium, Total	2.0		mg/L	0.25	EPA 200.7	1	05/12/2023 12:14	SRT	D1
Sodium, Dissolved	8.6		mg/L	0.50	EPA 200.7	1	05/17/2023 17:19	SRT	E1
Sodium, Total	9.3		mg/L	0.25	EPA 200.7	1	05/12/2023 12:14	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	05/18/2023 08:29	PDK	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 08:29	PDK	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 08:29	PDK	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 08:29	PDK	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 08:29	PDK	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 08:29	PDK	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 08:29	PDK	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 08:29	PDK	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 08:29	PDK	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 08:29	PDK	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 08:29	PDK	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 08:29	PDK	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 08:29	PDK	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 08:29	PDK	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 08:29	PDK	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 08:29	PDK	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	95.2%	70 – 130	05/18/2023 08:29	

WET CHEMISTRY

Results

Client Sample ID	3044 River Road, Conestoga, PA	Collected	05/05/2023 11:30
Lab Sample ID	3301822001	Lab Receipt	05/05/2023 16:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	13		mg/L	5	SM2320B-2011	1	05/10/2023 21:28	NML	A
Alkalinity, Total	13	1	mg/L	5	SM2320B-2011	1	05/10/2023 21:28	NML	A
Ammonia-N	0.177		mg/L	0.100	ASTM D6919-17	10	05/13/2023 09:46	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/10/2023 13:00	KMS	C
Chloride	17.3		mg/L	2.0	EPA 300.0	2	05/06/2023 09:40	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/06/2023 09:40	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	05/09/2023 17:47	PAG	I
Nitrate-N	17.8		mg/L	1.0	EPA 300.0	2	05/06/2023 09:40	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	05/06/2023 09:40	GMM	A
pH	7.03	2	pH_Units		S4500HB-11	1	05/10/2023 21:28	NML	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	05/24/2023 15:34	AKH	H
Specific Conductance	252		umhos/cm	5	SM2510B-2011	1	05/10/2023 13:10	JXL	A
Sulfate	ND	ND	mg/L	2.0	EPA 300.0	2	05/06/2023 09:40	GMM	A
Total Dissolved Solids	206		mg/L	25	SM2540C-15	1	05/12/2023 17:18	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	05/09/2023 04:40	PAG	F
Turbidity	11		NTU	0.30	SM2130B-2011	1	05/05/2023 23:16	NRB	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3301822001	3044 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		ASTM D6919-17	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3301822001	3044 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1003965
		EPA TRMD	989857	05/08/2023 18:45	ANN	EPA 200.7	995965
		EPA ACID	1002906	05/16/2023 17:06	MO	EPA 200.7	1003351
		N/A	N/A	N/A		EPA 524.2	1003366
		N/A	N/A	N/A		ASTM D6919-17	996679
		N/A	N/A	N/A		EPA 300.0	989154
		N/A	N/A	N/A		EPA 410.4	992358
		SW846 9066	1002552	05/17/2023 07:37	AKH	EPA 420.4	1005911
		N/A	N/A	N/A		S4500HB-11	991652
		N/A	N/A	N/A		SM2130B-2011	988752
		N/A	N/A	N/A		SM2320B-2011	991652
		N/A	N/A	N/A		SM2510B-2011	990651
		N/A	N/A	N/A		SM2540C-15	996054
		N/A	N/A	N/A		SM5310B-14	989830
		N/A	N/A	N/A		SW846 9020B	990624

ALS Environmental

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by AL

3301822

Logged By: SLS
PM: SJB

1 of 1

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

Client Name: Lancaster County Solid Waste MA

Address: 1299 Harrisburg Pike, 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 [X] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

Date Required: _____ **Approved By:** _____

Email? [ ] -Y

Fax? [ ] -Y No.: _____

Container Type	AG	AN	AN	CG	—	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

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	524 VOC's	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
					Enter Number of Containers Per Sample or Field Results Below.									
1 3044RIVERRD	05/05/23	1130	G	DW	2	1	2	3	X	1	1	1	1	1
2. Trip Blank	05/05/23	1605	G	DW				2						
3														
4														
5														
6														
7														
8														
9														
10														

DPB 5/5/23

(Completed by Receiving Lab)

Cooler Temp: Therm ID:

Temp By:	WO Temp (°C)	Therm ID	Initial
DPB	2°	570	

Receipt Info Completed By: DPB

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	
Correct Containers Provided	Y N	
Sample Label/COC Agree	Y N	
Adequate Sample Volumes	Y N	
CR6 Samples Filtered	Y N	NA
OP Samples Filtered	Y N	NA
VOA Headspace Present	Y N	NA
Voa Trip Blank	Y N	NA
NJ≤ 4 Days?	Y	
Rad Screen (uCi)		
Courier/Tracking #:		
SDWA Compliance	Y N	
PWSID		
WV Containers 0-6°C	Y N	NA

ALS Field Services: [ ] Pickup [ ] Labor
[ ] Composite_Sampling [ ] Rental_Equipment
[ ] Other: _____

Project Comments:

LOGGED BY(signature): DATE: TIME:

REVIEWED BY(signature): DATE: TIME:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature] ALS	5/5/23	1625	2 [signature]	5/5/23	1625
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [ ] NY [ ] NJ [X] PA [ ] NC [ ]

Reportable to PADEP? Yes [ ] PWSID # _____

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- _____

* G=Grab; C=Composite

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

Rev 8/04

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 2ND QTR 2023 3052 RIVER RD
Workorder 3301823
Report ID 246164 on 5/23/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 05, 2023.

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.

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

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3301823001	3052 River Road, Conestoga, PA	Water	05/05/2023 11:40	05/05/2023 16:25	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 preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.

Detected Results Summary

Client Sample ID	3052 River Road, Conestoga, PA	Collected	05/05/2023 11:40
Lab Sample ID	3301823001	Lab Receipt	05/05/2023 16:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.54	pH_Units		Field	#
Specific Conductance, Field	249	umhos/cm	1	Field	#
Temperature	14.26	Deg. C		Field	#
METALS					
Calcium, Dissolved	18.1	mg/L	0.10	EPA 200.7	#
Calcium, Total	19.7	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	8.3	mg/L	0.10	EPA 200.7	#
Magnesium, Total	8.7	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.020	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.020	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	1.8	mg/L	0.50	EPA 200.7	#
Potassium, Total	1.9	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	8.0	mg/L	0.50	EPA 200.7	#
Sodium, Total	8.8	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	7	mg/L	5	SM2320B-2011	#
Alkalinity, Total	7	mg/L	5	SM2320B-2011	#
Ammonia-N	0.169	mg/L	0.100	ASTM D6919-17	#
Chloride	19.0	mg/L	2.0	EPA 300.0	#
Nitrate-N	17.7	mg/L	1.0	EPA 300.0	#
pH	6.68	pH_Units		S4500HB-11	#
Specific Conductance	245	umhos/cm	5	SM2510B-2011	#
Sulfate	2.8	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	184	mg/L	25	SM2540C-15	#
Turbidity	0.40	NTU	0.30	SM2130B-2011	#

Results

Client Sample ID	3052 River Road, Conestoga, PA	Collected	05/05/2023 11:40
Lab Sample ID	3301823001	Lab Receipt	05/05/2023 16:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.54		pH_Units		Field	1	05/05/2023 11:40	BGS	N
Specific Conductance, Field	249		umhos/cm	1	Field	1	05/05/2023 11:40	BGS	N
Temperature	14.26		Deg. C		Field	1	05/05/2023 11:40	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	18.1		mg/L	0.10	EPA 200.7	1	05/17/2023 17:23	SRT	E1
Calcium, Total	19.7		mg/L	0.050	EPA 200.7	1	05/12/2023 12:18	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	05/17/2023 17:23	SRT	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	05/12/2023 12:18	SRT	D1
Magnesium, Dissolved	8.3		mg/L	0.10	EPA 200.7	1	05/17/2023 17:23	SRT	E1
Magnesium, Total	8.7		mg/L	0.050	EPA 200.7	1	05/12/2023 12:18	SRT	D1
Manganese, Dissolved	0.020		mg/L	0.0050	EPA 200.7	1	05/17/2023 17:23	SRT	E1
Manganese, Total	0.020		mg/L	0.0025	EPA 200.7	1	05/12/2023 12:18	SRT	D1
Potassium, Dissolved	1.8		mg/L	0.50	EPA 200.7	1	05/17/2023 17:23	SRT	E1
Potassium, Total	1.9		mg/L	0.25	EPA 200.7	1	05/12/2023 12:18	SRT	D1
Sodium, Dissolved	8.0		mg/L	0.50	EPA 200.7	1	05/17/2023 17:23	SRT	E1
Sodium, Total	8.8		mg/L	0.25	EPA 200.7	1	05/12/2023 12:18	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	05/18/2023 01:59	PDK	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 01:59	PDK	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 01:59	PDK	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 01:59	PDK	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 01:59	PDK	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 01:59	PDK	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 01:59	PDK	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 01:59	PDK	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 01:59	PDK	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 01:59	PDK	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 01:59	PDK	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 01:59	PDK	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 01:59	PDK	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 01:59	PDK	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 01:59	PDK	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 01:59	PDK	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	90.6%	70 – 130	05/18/2023 01:59	

WET CHEMISTRY

Results

Client Sample ID	3052 River Road, Conestoga, PA	Collected	05/05/2023 11:40
Lab Sample ID	3301823001	Lab Receipt	05/05/2023 16:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	7		mg/L	5	SM2320B-2011	1	05/10/2023 21:40	NML	A
Alkalinity, Total	7	1	mg/L	5	SM2320B-2011	1	05/10/2023 21:40	NML	A
Ammonia-N	0.169		mg/L	0.100	ASTM D6919-17	10	05/13/2023 09:19	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/10/2023 13:00	KMS	C
Chloride	19.0		mg/L	2.0	EPA 300.0	2	05/06/2023 10:53	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/06/2023 10:53	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	05/09/2023 17:47	PAG	I
Nitrate-N	17.7		mg/L	1.0	EPA 300.0	2	05/06/2023 10:53	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	05/06/2023 10:53	GMM	A
pH	6.68	2	pH_Units		S4500HB-11	1	05/10/2023 21:40	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	05/17/2023 13:40	AKH	H
Specific Conductance	245		umhos/cm	5	SM2510B-2011	1	05/10/2023 13:10	JXL	A
Sulfate	2.8		mg/L	2.0	EPA 300.0	2	05/06/2023 10:53	GMM	A
Total Dissolved Solids	184		mg/L	25	SM2540C-15	1	05/12/2023 17:18	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	05/11/2023 12:31	PAG	F
Turbidity	0.40		NTU	0.30	SM2130B-2011	1	05/05/2023 23:16	NRB	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3301823001	3052 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		ASTM D6919-17	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3301823001	3052 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1003965
		EPA TRMD	989857	05/08/2023 18:45	ANN	EPA 200.7	995965
		EPA ACID	1002906	05/16/2023 17:06	MO	EPA 200.7	1003351
		N/A	N/A	N/A		EPA 524.2	1003366
		N/A	N/A	N/A		ASTM D6919-17	996679
		N/A	N/A	N/A		EPA 300.0	989154
		N/A	N/A	N/A		EPA 410.4	992358
		SW846 9066	1002552	05/17/2023 07:37	AKH	EPA 420.4	1003052
		N/A	N/A	N/A		S4500HB-11	991652
		N/A	N/A	N/A		SM2130B-2011	988752
		N/A	N/A	N/A		SM2320B-2011	991652
		N/A	N/A	N/A		SM2510B-2011	990651
		N/A	N/A	N/A		SM2540C-15	996054
		N/A	N/A	N/A		SM5310B-14	993507
		N/A	N/A	N/A		SW846 9020B	990624

5/23/2023 12:37 PM

ALS Environmental

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

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3301823

Logged By: SLS
PM: SJB

1 of 1

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

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

Date Required: _____ **Approved By:** _____

Email? [ ] -Y _____

Fax? [ ] -Y No.: _____

Container Type	AG	AN	AN	CG	—	PL	PL	PL	P	
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

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	524 VOC's	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
					Enter Number of Containers Per Sample or Field Results Below.									
1. 3052RIVERRD	05/05/23	1140	G	DW	2	1	2	3	x	1	4	2	1	1
2. Trip Blank	05/05/23	1625	G	DW				2			DPB 5/5/23			
3														
4														
5														
6														
7														
8														
9														
10														

Project Comments:

LOGGED BY(signature): _____ DATE _____ TIME _____

REVIEWED BY(signature): _____ DATE _____ TIME _____

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature] ALS	5-5-23	1625	2 [signature]	5/5/23	1625
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=Wipe; WW=Wastewater

tted by Receiving Lab)

Cooler Temp: _____ Therm ID: _____

No. of Coolers: _____ Y N Initial

Custody Seals Present? [ ] [ ]

Temp By: DPB | WO Temp (°C): 2° | Therm ID: 570

Receipt Info Completed By:	DPB
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
Correct Containers Provided	Y N
Sample Label/COC Agree	Y N
Adequate Sample Volumes	Y N
CR6 Samples Filtered	Y N NA
OP Samples Filtered	Y N NA
VOA Headspace Present	Y N NA
Voa Trip Blank	Y N NA
NJ≤ 4 Days?	Y N
Rad Screen (uCi)	
Courier/Tracking #:	
SDWA Compliance	Y N
PWSID	
WV Containers 0-6°C	Y N NA

ALS Field Services: [ ] Pickup [ ] Labor
[ ] Composite_Sampling [ ] Rental_Equipment
[ ] Other: _____

Data Deliverables
[ ] Standard
[ ] CLP-like
[ ] USACE
[ ]

Special Processing
USACE [ ]
Navy [ ]
[ ]

State Samples Collected In
[ ] NY
[ ] NJ
[X] PA
[ ] NC
[ ]

Reportable to PADEP?
Yes [ ]
PWSID # _____

Sample Disposal
Lab [X]
Special [ ]

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 2ND QTR 2023 3056 RIVER RD
Workorder 3301824
Report ID 246169 on 5/23/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 05, 2023.

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.

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

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3301824001	3056RIVERRD	Water	05/05/2023 11:50	05/05/2023 16:25	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 preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.

Detected Results Summary

Client Sample ID	3056RIVERRD	Collected	05/05/2023 11:50
Lab Sample ID	3301824001	Lab Receipt	05/05/2023 16:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.63	pH_Units		Field	#
Specific Conductance, Field	247	umhos/cm	1	Field	#
Temperature	13.87	Deg. C		Field	#
METALS					
Calcium, Dissolved	12.0	mg/L	0.10	EPA 200.7	#
Calcium, Total	13.4	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	11.1	mg/L	0.10	EPA 200.7	#
Magnesium, Total	11.8	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.085	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.089	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.4	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.5	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	8.2	mg/L	0.50	EPA 200.7	#
Sodium, Total	9.1	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	9	mg/L	5	SM2320B-2011	#
Alkalinity, Total	9	mg/L	5	SM2320B-2011	#
Ammonia-N	0.101	mg/L	0.100	ASTM D6919-17	#
Chloride	21.6	mg/L	2.0	EPA 300.0	#
Nitrate-N	16.6	mg/L	1.0	EPA 300.0	#
pH	6.71	pH_Units		S4500HB-11	#
Specific Conductance	240	umhos/cm	5	SM2510B-2011	#
Total Dissolved Solids	170	mg/L	25	SM2540C-15	#

Results

Client Sample ID	3056RIVERRD	Collected	05/05/2023 11:50
Lab Sample ID	3301824001	Lab Receipt	05/05/2023 16:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.63		pH_Units		Field	1	05/05/2023 11:50	BGS	N
Specific Conductance, Field	247		umhos/cm	1	Field	1	05/05/2023 11:50	BGS	N
Temperature	13.87		Deg. C		Field	1	05/05/2023 11:50	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	12.0		mg/L	0.10	EPA 200.7	1	05/17/2023 17:26	SRT	E1
Calcium, Total	13.4		mg/L	0.050	EPA 200.7	1	05/12/2023 12:27	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	05/17/2023 17:26	SRT	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	05/12/2023 12:27	SRT	D1
Magnesium, Dissolved	11.1		mg/L	0.10	EPA 200.7	1	05/17/2023 17:26	SRT	E1
Magnesium, Total	11.8		mg/L	0.050	EPA 200.7	1	05/12/2023 12:27	SRT	D1
Manganese, Dissolved	0.085		mg/L	0.0050	EPA 200.7	1	05/17/2023 17:26	SRT	E1
Manganese, Total	0.089		mg/L	0.0025	EPA 200.7	1	05/12/2023 12:27	SRT	D1
Potassium, Dissolved	2.4		mg/L	0.50	EPA 200.7	1	05/17/2023 17:26	SRT	E1
Potassium, Total	2.5		mg/L	0.25	EPA 200.7	1	05/12/2023 12:27	SRT	D1
Sodium, Dissolved	8.2		mg/L	0.50	EPA 200.7	1	05/17/2023 17:26	SRT	E1
Sodium, Total	9.1		mg/L	0.25	EPA 200.7	1	05/12/2023 12:27	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	05/18/2023 02:26	PDK	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:26	PDK	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:26	PDK	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:26	PDK	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:26	PDK	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:26	PDK	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:26	PDK	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:26	PDK	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:26	PDK	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:26	PDK	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:26	PDK	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:26	PDK	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:26	PDK	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:26	PDK	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:26	PDK	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:26	PDK	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	89.4%	70 – 130	05/18/2023 02:26	

WET CHEMISTRY

Results

Client Sample ID	3056RIVERRD	Collected	05/05/2023 11:50
Lab Sample ID	3301824001	Lab Receipt	05/05/2023 16:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	9		mg/L	5	SM2320B-2011	1	05/10/2023 22:28	NML	A
Alkalinity, Total	9	1	mg/L	5	SM2320B-2011	1	05/10/2023 22:28	NML	A
Ammonia-N	0.101		mg/L	0.100	ASTM D6919-17	10	05/13/2023 06:17	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/10/2023 13:00	KMS	C
Chloride	21.6		mg/L	2.0	EPA 300.0	2	05/06/2023 11:04	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/06/2023 11:04	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	05/09/2023 17:47	PAG	I
Nitrate-N	16.6		mg/L	1.0	EPA 300.0	2	05/06/2023 11:04	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	05/06/2023 11:04	GMM	A
pH	6.71	2	pH_Units		S4500HB-11	1	05/10/2023 22:28	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	05/17/2023 13:42	AKH	H
Specific Conductance	240		umhos/cm	5	SM2510B-2011	1	05/10/2023 13:10	JXL	A
Sulfate	ND	ND	mg/L	2.0	EPA 300.0	2	05/06/2023 11:04	GMM	A
Total Dissolved Solids	170		mg/L	25	SM2540C-15	1	05/12/2023 17:18	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	05/11/2023 12:31	PAG	F
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	05/05/2023 23:16	NRB	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3301824001	3056RIVERRD	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		ASTM D6919-17	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3301824001	3056RIVERRD	N/A	N/A	N/A		Field	1003965
		EPA TRMD	989857	05/08/2023 18:45	ANN	EPA 200.7	995965
		EPA ACID	1002906	05/16/2023 17:06	MO	EPA 200.7	1003351
		N/A	N/A	N/A		EPA 524.2	1003366
		N/A	N/A	N/A		ASTM D6919-17	996664
		N/A	N/A	N/A		EPA 300.0	989154
		N/A	N/A	N/A		EPA 410.4	992358
		SW846 9066	1002552	05/17/2023 07:37	AKH	EPA 420.4	1003052
		N/A	N/A	N/A		S4500HB-11	991652
		N/A	N/A	N/A		SM2130B-2011	988752
		N/A	N/A	N/A		SM2320B-2011	991652
		N/A	N/A	N/A		SM2510B-2011	990651
		N/A	N/A	N/A		SM2540C-15	996054
		N/A	N/A	N/A		SM5310B-14	993507
		N/A	N/A	N/A		SW846 9020B	990624

524431

ALS Environmental

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3301824

Logged By: SLS

PM: SJB

1 of 1

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

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

(Shaded Areas Must be Completed by Receiving 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

Bill To: Lancaster County Solid Waste MA

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

Date Required: _____ **Approved By:** _____

Email? [ ] -Y

Fax? [ ] -Y No.: _____

Cooler Temp: _____ Therm ID: _____

No. of Coolers: _____ Y N Initial

Custody Seals Present? [ ] [ ]

Temp By: DPB | WO Temp (°C): 2° | Therm ID: 570

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	500 ml
Preservative	HCl	H2SO4	H2SO4	Asc&HCl	—	H2SO4	HNO3	HNO3	None	None

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	524 VOC's	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
					Enter Number of Containers Per Sample or Field Results Below.									
1. 3056RIVERRD	05/05/23	1150	G	DW	2	1	2	3	X	1	2	2	1	1
2. Trip Blank	05/05/23	1625	G	DW				2			DPB 5/5/23			
3														
4														
5														
6														
7														
8														
9														
10														

Receipt Info Completed By: DPB

Cooler Custody Seal Intact	Y	N	NA
Sample Custody Seal Intact	Y	N	NA
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	
CR6 Samples Filtered	Y	N	NA
OP Samples Filtered	Y	N	NA
VOA Headspace Present	Y	N	NA
Voa Trip Blank	Y	N	NA
NI≤ 4 Days?	Y	N	
Rad Screen (uCi)			
Courier/Tracking #:			
SDWA Compliance	Y	N	
PWSID			
WV Containers 0-6°C	Y	N	

ALS Field Services: [ ] Pickup [ ] Labor [ ] Composite_Sampling [ ] Rental_Equipment [ ] Other: _____

Project Comments:

LOGGED BY(signature): DATE TIME

REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature] ALS	5-5-23	1625	2 [signature]	5/5/23	1625
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [ ] NY [ ] NJ [X] PA [ ] NC [ ]

Reportable to PADEP? Yes [ ]

PWSID # _____

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- _____

* G=Grab; C=Composite

**Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=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 2ND QTR 2023 3060 RIVER RD
Workorder 3301867
Report ID 246769 on 5/25/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 05, 2023.

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.

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

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3301867001	3060RIVERRD	Water	05/05/2023 12:00	05/05/2023 16:25	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 preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.

Detected Results Summary

Client Sample ID	3060RIVERRD	Collected	05/05/2023 12:00
Lab Sample ID	3301867001	Lab Receipt	05/05/2023 16:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.51	pH_Units		Field	#
Specific Conductance, Field	251	umhos/cm	1	Field	#
Temperature	15.06	Deg. C		Field	#
METALS					
Calcium, Dissolved	12.4	mg/L	0.10	EPA 200.7	#
Calcium, Total	12.9	mg/L	0.050	EPA 200.7	#
Iron, Total	0.050	mg/L	0.030	EPA 200.7	#
Magnesium, Dissolved	11.0	mg/L	0.10	EPA 200.7	#
Magnesium, Total	11.5	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.11	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.12	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.7	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.8	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	8.4	mg/L	0.50	EPA 200.7	#
Sodium, Total	9.1	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Ammonia-N	0.159	mg/L	0.100	ASTM D6919-17	#
Chloride	18.1	mg/L	2.0	EPA 300.0	#
Nitrate-N	16.4	mg/L	1.0	EPA 300.0	#
pH	6.57	pH_Units		S4500HB-11	#
Specific Conductance	241	umhos/cm	5	SM2510B-2011	#
Sulfate	9.2	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	158	mg/L	25	SM2540C-15	#

Results

Client Sample ID	3060RIVERRD	Collected	05/05/2023 12:00
Lab Sample ID	3301867001	Lab Receipt	05/05/2023 16:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.51		pH_Units		Field	1	05/05/2023 12:00	BGS	P
Specific Conductance, Field	251		umhos/cm	1	Field	1	05/05/2023 12:00	BGS	P
Temperature	15.06		Deg. C		Field	1	05/05/2023 12:00	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	12.4		mg/L	0.10	EPA 200.7	1	05/22/2023 19:47	SRT	F1
Calcium, Total	12.9		mg/L	0.050	EPA 200.7	1	05/12/2023 13:06	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	05/20/2023 14:04	SRT	F1
Iron, Total	0.050		mg/L	0.030	EPA 200.7	1	05/12/2023 13:06	SRT	D1
Magnesium, Dissolved	11.0		mg/L	0.10	EPA 200.7	1	05/20/2023 14:04	SRT	F1
Magnesium, Total	11.5		mg/L	0.050	EPA 200.7	1	05/12/2023 13:06	SRT	D1
Manganese, Dissolved	0.11		mg/L	0.0050	EPA 200.7	1	05/20/2023 14:04	SRT	F1
Manganese, Total	0.12		mg/L	0.0025	EPA 200.7	1	05/12/2023 13:06	SRT	D1
Potassium, Dissolved	2.7		mg/L	0.50	EPA 200.7	1	05/20/2023 14:04	SRT	F1
Potassium, Total	2.8		mg/L	0.25	EPA 200.7	1	05/12/2023 13:06	SRT	D1
Sodium, Dissolved	8.4		mg/L	0.50	EPA 200.7	1	05/20/2023 14:04	SRT	F1
Sodium, Total	9.1		mg/L	0.25	EPA 200.7	1	05/12/2023 13:06	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	05/19/2023 05:54	PDK	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/19/2023 05:54	PDK	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/19/2023 05:54	PDK	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/19/2023 05:54	PDK	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/19/2023 05:54	PDK	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/19/2023 05:54	PDK	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/19/2023 05:54	PDK	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/19/2023 05:54	PDK	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/19/2023 05:54	PDK	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/19/2023 05:54	PDK	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	05/19/2023 05:54	PDK	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	05/19/2023 05:54	PDK	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/19/2023 05:54	PDK	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/19/2023 05:54	PDK	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/19/2023 05:54	PDK	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/19/2023 05:54	PDK	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	94.4%	70 – 130	05/19/2023 05:54	

WET CHEMISTRY

Results

Client Sample ID	3060RIVERRD	Collected	05/05/2023 12:00
Lab Sample ID	3301867001	Lab Receipt	05/05/2023 16:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	ND	ND	mg/L	5	SM2320B-2011	1	05/19/2023 08:40	NML	A
Alkalinity, Total	ND	ND,1	mg/L	5	SM2320B-2011	1	05/19/2023 08:40	NML	A
Ammonia-N	0.159		mg/L	0.100	ASTM D6919-17	10	05/13/2023 08:37	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/10/2023 13:00	KMS	C
Chloride	18.1		mg/L	2.0	EPA 300.0	2	05/06/2023 17:40	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/06/2023 17:40	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	05/12/2023 14:02	PAG	K
Nitrate-N	16.4		mg/L	1.0	EPA 300.0	2	05/06/2023 17:40	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	05/06/2023 17:40	GMM	A
pH	6.57	2	pH_Units		S4500HB-11	1	05/10/2023 23:48	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	05/17/2023 14:48	AKH	J
Specific Conductance	241		umhos/cm	5	SM2510B-2011	1	05/10/2023 13:10	JXL	A
Sulfate	9.2		mg/L	2.0	EPA 300.0	2	05/06/2023 17:40	GMM	A
Total Dissolved Solids	158		mg/L	25	SM2540C-15	1	05/12/2023 17:18	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	05/11/2023 12:31	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	05/05/2023 23:16	NRB	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3301867001	3060RIVERRD	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		ASTM D6919-17	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3301867001	3060RIVERRD	N/A	N/A	N/A		Field	1003965
		EPA TRMD	989857	05/08/2023 18:45	ANN	EPA 200.7	995965
		EPA ACID	1004871	05/19/2023 14:57	MO	EPA 200.7	1004872
		EPA ACID	1004871	05/19/2023 14:57	MO	EPA 200.7	1005746
		N/A	N/A	N/A		EPA 524.2	1004255
		N/A	N/A	N/A		ASTM D6919-17	996679
		N/A	N/A	N/A		EPA 300.0	989154
		N/A	N/A	N/A		EPA 410.4	992358
		SW846 9066	1002552	05/17/2023 07:37	AKH	EPA 420.4	1003052
		N/A	N/A	N/A		S4500HB-11	991652
		N/A	N/A	N/A		SM2130B-2011	988752
		N/A	N/A	N/A		SM2320B-2011	1004210
		N/A	N/A	N/A		SM2510B-2011	990651
		N/A	N/A	N/A		SM2540C-15	996257
		N/A	N/A	N/A		SM5310B-14	993507
		N/A	N/A	N/A		SW846 9020B	996452

Duplicate COC

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3301867
Logged By: SLS
PM: SJB

1 of 1

ALS Environmental
301 Fulling Mill Road • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

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

Client Name: Lancaster County Solid Waste MA
Address: 1299 Harrisburg Pike, 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 [X] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.
Date Required: _____ **Approved By:** _____
Email? [ ] -Y
Fax? [ ] -Y No.: _____

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	500 ml
Preservative	HCl	H2SO4	H2SO4	Asc&HCl	—	H2SO4	HNO3	HNO3	None	None

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	524 VOC's	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
					Enter Number of Containers Per Sample or Field Results Below.									
1. 3056RIVERRD 3060RIVERRD	05/05/23	1150 1150	G	DW	2	1	2	3	X	1	2	2	1	1
2. Trip Blank	05/05/23	1625	G	DW				2						
3														
4														
5														
6														
7														
8														
9														
10														

DPB 5/5/23

(Lab to complete)

Cooler Temp: _____ Therm ID: _____
No. of Coolers: _____ Y N Initial

Temp By:	WO Temp (°C)	Therm ID
DPB	3	520

Receipt Info Completed By: DPB

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	
Correct Containers Provided	Y	N	
Sample Label/COC Agree	Y	N	
Adequate Sample Volumes		N	
CR6 Samples Filtered	Y	N	NA
OP Samples Filtered	Y	N	NA
VOA Headspace Present	Y	N	NA
Voa Trip Blank	Y	N	NA
NJ≤ 4 Days?	Y		
Rad Screen (uCi)			
Courier/Tracking #:			
SDWA Compliance	Y		
PWSID			
WV Containers 0-6°C	Y	N	NA

ALS Field Services: ☐Pickup ☐Labor
☐Composite_Sampling ☐Rental_Equipment
☐Other: _____

Project Comments:

LOGGED BY(signature): DATE TIME
REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 KTB Schoale ALS	5/5/23	1625	2	5/5/23	1625
3			4		
5			6		
7			8		
9			10		

Data Deliverables: ☐Standard ☐CLP-like ☐USACE ☐

Special Processing: USACE ☐ Navy ☐ ☐

State Samples Collected In: ☐NY ☐NJ [X]PA ☐NC ☐

Reportable to PADEP? Yes ☐
PWSID # _____

Sample Disposal: Lab [X] Special ☐

EDDS: Format Type- _____

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

ALS ENVIRONMENTAL SHIPPING ADDRESS: 34 DOGWOOD LANE, MIDDLETOWN, PA 17057

Rev 8/04

5/25/2023 8:58 AM

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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 2ND QTR 2023-3076 RIVER RD
Workorder 3301825
Report ID 246166 on 5/23/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 05, 2023.

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.

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

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3301825001	3076 River Road, Conestoga, PA	Water	05/05/2023 12:10	05/05/2023 16:25	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 preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.

Detected Results Summary

Client Sample ID	3076 River Road, Conestoga, PA	Collected	05/05/2023 12:10
Lab Sample ID	3301825001	Lab Receipt	05/05/2023 16:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.57	pH_Units		Field	#
Specific Conductance, Field	334	umhos/cm	1	Field	#
Temperature	15.72	Deg. C		Field	#
METALS					
Calcium, Dissolved	14.3	mg/L	0.10	EPA 200.7	#
Calcium, Total	15.7	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	8.4	mg/L	0.10	EPA 200.7	#
Magnesium, Total	8.8	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.17	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.17	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	3.5	mg/L	0.50	EPA 200.7	#
Potassium, Total	3.7	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	23.9	mg/L	0.50	EPA 200.7	#
Sodium, Total	25.4	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	7	mg/L	5	SM2320B-2011	#
Alkalinity, Total	7	mg/L	5	SM2320B-2011	#
Ammonia-N	0.105	mg/L	0.100	ASTM D6919-17	#
Chloride	54.2	mg/L	2.0	EPA 300.0	#
Nitrate-N	9.3	mg/L	1.0	EPA 300.0	#
pH	6.61	pH_Units		S4500HB-11	#
Specific Conductance	323	umhos/cm	5	SM2510B-2011	#
Sulfate	11.7	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	210	mg/L	25	SM2540C-15	#

Results

Client Sample ID	3076 River Road, Conestoga, PA	Collected	05/05/2023 12:10
Lab Sample ID	3301825001	Lab Receipt	05/05/2023 16:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.57		pH_Units		Field	1	05/05/2023 12:10	BGS	N
Specific Conductance, Field	334		umhos/cm	1	Field	1	05/05/2023 12:10	BGS	N
Temperature	15.72		Deg. C		Field	1	05/05/2023 12:10	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	14.3		mg/L	0.10	EPA 200.7	1	05/17/2023 17:29	SRT	E1
Calcium, Total	15.7		mg/L	0.050	EPA 200.7	1	05/12/2023 12:34	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	05/17/2023 17:29	SRT	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	05/12/2023 12:34	SRT	D1
Magnesium, Dissolved	8.4		mg/L	0.10	EPA 200.7	1	05/17/2023 17:29	SRT	E1
Magnesium, Total	8.8		mg/L	0.050	EPA 200.7	1	05/12/2023 12:34	SRT	D1
Manganese, Dissolved	0.17		mg/L	0.0050	EPA 200.7	1	05/17/2023 17:29	SRT	E1
Manganese, Total	0.17		mg/L	0.0025	EPA 200.7	1	05/12/2023 12:34	SRT	D1
Potassium, Dissolved	3.5		mg/L	0.50	EPA 200.7	1	05/17/2023 17:29	SRT	E1
Potassium, Total	3.7		mg/L	0.25	EPA 200.7	1	05/12/2023 12:34	SRT	D1
Sodium, Dissolved	23.9		mg/L	0.50	EPA 200.7	1	05/17/2023 17:29	SRT	E1
Sodium, Total	25.4		mg/L	0.25	EPA 200.7	1	05/12/2023 12:34	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	05/18/2023 02:53	PDK	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:53	PDK	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:53	PDK	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:53	PDK	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:53	PDK	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:53	PDK	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:53	PDK	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:53	PDK	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:53	PDK	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:53	PDK	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:53	PDK	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:53	PDK	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:53	PDK	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:53	PDK	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:53	PDK	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 02:53	PDK	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	91.4%	70 – 130	05/18/2023 02:53	

WET CHEMISTRY

Results

Client Sample ID	3076 River Road, Conestoga, PA	Collected	05/05/2023 12:10
Lab Sample ID	3301825001	Lab Receipt	05/05/2023 16:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	7		mg/L	5	SM2320B-2011	1	05/10/2023 22:40	NML	A
Alkalinity, Total	7	1	mg/L	5	SM2320B-2011	1	05/10/2023 22:40	NML	A
Ammonia-N	0.105		mg/L	0.100	ASTM D6919-17	10	05/13/2023 06:03	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/10/2023 13:00	KMS	C
Chloride	54.2		mg/L	2.0	EPA 300.0	2	05/06/2023 11:14	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/06/2023 11:14	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	05/11/2023 18:25	PAG	I
Nitrate-N	9.3		mg/L	1.0	EPA 300.0	2	05/06/2023 11:14	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	05/06/2023 11:14	GMM	A
pH	6.61	2	pH_Units		S4500HB-11	1	05/10/2023 22:40	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	05/17/2023 13:49	AKH	H
Specific Conductance	323		umhos/cm	5	SM2510B-2011	1	05/10/2023 13:10	JXL	A
Sulfate	11.7		mg/L	2.0	EPA 300.0	2	05/06/2023 11:14	GMM	A
Total Dissolved Solids	210		mg/L	25	SM2540C-15	1	05/12/2023 17:18	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	05/11/2023 12:31	PAG	F
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	05/05/2023 23:16	NRB	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3301825001	3076 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		ASTM D6919-17	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3301825001	3076 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1003965
		EPA TRMD	989857	05/08/2023 18:45	ANN	EPA 200.7	995965
		EPA ACID	1002906	05/16/2023 17:06	MO	EPA 200.7	1003351
		N/A	N/A	N/A		EPA 524.2	1003366
		N/A	N/A	N/A		ASTM D6919-17	996664
		N/A	N/A	N/A		EPA 300.0	989154
		N/A	N/A	N/A		EPA 410.4	992358
		SW846 9066	1002552	05/17/2023 07:37	AKH	EPA 420.4	1003052
		N/A	N/A	N/A		S4500HB-11	991652
		N/A	N/A	N/A		SM2130B-2011	988752
		N/A	N/A	N/A		SM2320B-2011	991652
		N/A	N/A	N/A		SM2510B-2011	990651
		N/A	N/A	N/A		SM2540C-15	996054
		N/A	N/A	N/A		SM5310B-14	993507
		N/A	N/A	N/A		SW846 9020B	994267

ALS Environmental

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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3301825

Logged By: SLS
PM: SJB

1 of 1

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

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

Date Required: _____ **Approved By:** _____

Email? [ ] -Y

Fax? [ ] -Y No.: _____

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	500 ml
Preservative	HCl	H2SO4	H2SO4	Asc&HCl	---	H2SO4	HNO3	HNO3	None	None

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	524 VOC's	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
					Enter Number of Containers Per Sample or Field Results Below.									
1 3076RIVERRD	05/05/23	1210	G	DW	2	1	2	3	X	1	2	2	1	1
2. Trip Blank	05/05/23	1625	G	DW				2						
3														
4														
5														
6														
7														
8														
9														
10														

SAB 5/5/23

(Receiving Lab)

Cooler Temp: _____ Therm ID: _____

No. of Coolers: _____ Y N Initial

Temp By:	WO Temp (°C)	Therm ID
DPB	2.6	506

Receipt Info Completed By: DPB

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	
Correct Containers Provided	Y N	
Sample Label/COC Agree	Y N	
Adequate Sample Volumes		
CR6 Samples Filtered	Y N	NA
OP Samples Filtered	Y N	NA
VOA Headspace Present	Y N	NA
Voa Trip Blank	Y N	NA
NJ≤ 4 Days?	Y N	
Rad Screen (uCi)		
Courier/Tracking #:		
SDWA Compliance	Y N	
PWSID		
WV Containers 0-6°C	Y N	NA

Project Comments:

ALS Field Services: [ ] Pickup [ ] Labor [ ] Composite_Sampling [ ] Rental_Equipment [ ] Other: _____

LOGGED BY(signature): _____ DATE _____ TIME _____

REVIEWED BY(signature): _____ DATE _____ TIME _____

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Rob Shacle ALS	5-5-23	1625	2	5/5/23	1625
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [ ] NY [ ] NJ [X] PA [ ] NC

Reportable to PADEP? Yes [ ]

PWSID # _____

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- _____

* G=Grab; C=Composite

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

ALS ENVIRONMENTAL CHAIN

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 2ND QTR 2023 3079 RIVER RD
Workorder 3301828
Report ID 246165 on 5/23/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 05, 2023.

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.

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

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3301828001	3079RIVERRD	Water	05/05/2023 14:00	05/05/2023 16:25	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 preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.

Detected Results Summary

Client Sample ID	3079RIVERRD	Collected	05/05/2023 14:00
Lab Sample ID	3301828001	Lab Receipt	05/05/2023 16:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.22	pH_Units		Field	#
Specific Conductance, Field	209	umhos/cm	1	Field	#
Temperature	15.29	Deg. C		Field	#
METALS					
Calcium, Dissolved	10.9	mg/L	0.10	EPA 200.7	#
Calcium, Total	12.1	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	5.8	mg/L	0.10	EPA 200.7	#
Magnesium, Total	6.2	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.034	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.035	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.0	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.1	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	13.2	mg/L	0.50	EPA 200.7	#
Sodium, Total	14.3	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	24	mg/L	5	SM2320B-2011	#
Alkalinity, Total	24	mg/L	5	SM2320B-2011	#
Ammonia-N	0.232	mg/L	0.100	ASTM D6919-17	#
Chloride	33.2	mg/L	2.0	EPA 300.0	#
Nitrate-N	1.1	mg/L	1.0	EPA 300.0	#
pH	7.17	pH_Units		S4500HB-11	#
Specific Conductance	197	umhos/cm	5	SM2510B-2011	#
Sulfate	9.9	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	129	mg/L	25	SM2540C-15	#

Results

Client Sample ID	3079RIVERRD	Collected	05/05/2023 14:00
Lab Sample ID	3301828001	Lab Receipt	05/05/2023 16:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.22		pH_Units		Field	1	05/05/2023 14:00	BGS	N
Specific Conductance, Field	209		umhos/cm	1	Field	1	05/05/2023 14:00	BGS	N
Temperature	15.29		Deg. C		Field	1	05/05/2023 14:00	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	10.9		mg/L	0.10	EPA 200.7	1	05/17/2023 17:32	SRT	E1
Calcium, Total	12.1		mg/L	0.050	EPA 200.7	1	05/12/2023 12:37	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	05/17/2023 17:32	SRT	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	05/12/2023 12:37	SRT	D1
Magnesium, Dissolved	5.8		mg/L	0.10	EPA 200.7	1	05/17/2023 17:32	SRT	E1
Magnesium, Total	6.2		mg/L	0.050	EPA 200.7	1	05/12/2023 12:37	SRT	D1
Manganese, Dissolved	0.034		mg/L	0.0050	EPA 200.7	1	05/17/2023 17:32	SRT	E1
Manganese, Total	0.035		mg/L	0.0025	EPA 200.7	1	05/12/2023 12:37	SRT	D1
Potassium, Dissolved	2.0		mg/L	0.50	EPA 200.7	1	05/17/2023 17:32	SRT	E1
Potassium, Total	2.1		mg/L	0.25	EPA 200.7	1	05/12/2023 12:37	SRT	D1
Sodium, Dissolved	13.2		mg/L	0.50	EPA 200.7	1	05/17/2023 17:32	SRT	E1
Sodium, Total	14.3		mg/L	0.25	EPA 200.7	1	05/12/2023 12:37	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	05/18/2023 18:37	TMP	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 18:37	TMP	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 18:37	TMP	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 18:37	TMP	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 18:37	TMP	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 18:37	TMP	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 18:37	TMP	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 18:37	TMP	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 18:37	TMP	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 18:37	TMP	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 18:37	TMP	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 18:37	TMP	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 18:37	TMP	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 18:37	TMP	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 18:37	TMP	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 18:37	TMP	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	92.1%	70 – 130	05/18/2023 18:37	

WET CHEMISTRY

Results

Client Sample ID	3079RIVERRD	Collected	05/05/2023 14:00
Lab Sample ID	3301828001	Lab Receipt	05/05/2023 16:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	24		mg/L	5	SM2320B-2011	1	05/10/2023 22:54	NML	A
Alkalinity, Total	24	1	mg/L	5	SM2320B-2011	1	05/10/2023 22:54	NML	A
Ammonia-N	0.232		mg/L	0.100	ASTM D6919-17	10	05/13/2023 09:05	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/10/2023 13:00	KMS	C
Chloride	33.2		mg/L	2.0	EPA 300.0	2	05/06/2023 11:25	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/06/2023 11:25	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	05/11/2023 18:25	PAG	I
Nitrate-N	1.1		mg/L	1.0	EPA 300.0	2	05/06/2023 11:25	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	05/06/2023 11:25	GMM	A
pH	7.17	2	pH_Units		S4500HB-11	1	05/10/2023 22:54	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	05/17/2023 13:52	AKH	H
Specific Conductance	197		umhos/cm	5	SM2510B-2011	1	05/10/2023 13:10	JXL	A
Sulfate	9.9		mg/L	2.0	EPA 300.0	2	05/06/2023 11:25	GMM	A
Total Dissolved Solids	129		mg/L	25	SM2540C-15	1	05/12/2023 17:18	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	05/11/2023 12:31	PAG	F
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	05/05/2023 23:16	NRB	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3301828001	3079RIVERRD	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		ASTM D6919-17	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3301828001	3079RIVERRD	N/A	N/A	N/A		Field	1003965
		EPA TRMD	989857	05/08/2023 18:45	ANN	EPA 200.7	995965
		EPA ACID	1002906	05/16/2023 17:06	MO	EPA 200.7	1003351
		N/A	N/A	N/A		EPA 524.2	1003974
		N/A	N/A	N/A		ASTM D6919-17	996679
		N/A	N/A	N/A		EPA 300.0	989154
		N/A	N/A	N/A		EPA 410.4	992358
		SW846 9066	1002552	05/17/2023 07:37	AKH	EPA 420.4	1003052
		N/A	N/A	N/A		S4500HB-11	991652
		N/A	N/A	N/A		SM2130B-2011	988752
		N/A	N/A	N/A		SM2320B-2011	991652
		N/A	N/A	N/A		SM2510B-2011	990651
		N/A	N/A	N/A		SM2540C-15	996054
		N/A	N/A	N/A		SM5310B-14	993507
		N/A	N/A	N/A		SW846 9020B	994267

ALS Environmental

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

Generate

3301828

Logged By: SLS

PM: SJB

28

1 of 1

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 [X] Normal-Standard TAT is 10-12 business days.

[ ] Rush-Subject to ALS approval and surcharges.

Date Required: _____ **Approved By:** _____

Email? [ ] -Y

Fax? [ ] -Y No.: _____

Container Type	AG	AN	AN	CG	—	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

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**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
					Enter Number of Containers Per Sample or Field Results Below.									
1 3079RIVERRD	05/05/23	1400	G	DW	2	1	2	3	X	1	2	2	1	1
2. Trip Blank	05/05/23	1625	G	DW				2			DPB 5/5/23			
3														
4														
5														
6														
7														
8														
9														
10														

Project Comments:

LOGGED BY(signature): DATE TIME

REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature] ALS	5-5-23	1625	2 [signature]	5/5/23	1625
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=Wipe; WW=Wastewater

Data Deliverables

[ ] Standard
[ ] CLP-like
[ ] USACE
[ ]

Special Processing

USACE [ ]
Navy [ ]
[ ]

State Samples Collected In

[ ] NY
[ ] NJ
[X] PA
[ ] NC
[ ]

Reportable to PADEP?

Yes [ ]

PWSID # _____

Sample Disposal

Lab [X]
Special [ ]

EDDS: Format Type- _____

Cooler Temp: _____ **Therm ID:** _____

No. of Coolers: _____ Y N Initial

Temp By:	WO Temp (°C)	Therm ID
DPB	2.6	570

Receipt Info Completed By: DPB

Cooler Custody Seal Intact	Y	N	NA
Sample Custody Seal Intact	Y	N	NA
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	NA
CR6 Samples Filtered	Y	N	NA
OP Samples Filtered	Y	N	NA
VOA Headspace Present	Y	N	NA
Voa Trip Blank			Y
NJ≤ 4 Days?			
Rad Screen (uCi)			
Courier/Tracking #:			
SDWA Compliance			Y
PWSID			
WV Containers 0-6°C			Y N NA

ALS Field Services: [ ] Pickup [ ] Labor [ ] Composite_Sampling [ ] Rental_Equipment [ ] Other: _____

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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 2ND QTR 2023-3088 RIVER RD
Workorder 3301830
Report ID 246174 on 5/23/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 05, 2023.

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.

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

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3301830001	3088 River Road, Conestoga PA	Water	05/05/2023 12:40	05/05/2023 16:25	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 preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.
3	The 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	3088 River Road, Conestoga PA	Collected	05/05/2023 12:40
Lab Sample ID	3301830001	Lab Receipt	05/05/2023 16:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.89	pH_Units		Field	#
Specific Conductance, Field	1159	umhos/cm	1	Field	#
Temperature	16.47	Deg. C		Field	#
METALS					
Calcium, Dissolved	0.55	mg/L	0.10	EPA 200.7	#
Calcium, Total	0.18	mg/L	0.050	EPA 200.7	#
Potassium, Dissolved	2.7	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.8	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	224	mg/L	0.50	EPA 200.7	#
Sodium, Total	231	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	141	mg/L	5	SM2320B-2011	#
Alkalinity, Total	141	mg/L	5	SM2320B-2011	#
Ammonia-N	0.216	mg/L	0.100	ASTM D6919-17	#
Chloride	251	mg/L	5.0	EPA 300.0	#
Nitrate-N	4.9	mg/L	2.5	EPA 300.0	#
pH	7.99	pH_Units		S4500HB-11	#
Specific Conductance	1150	umhos/cm	5	SM2510B-2011	#
Total Dissolved Solids	616	mg/L	25	SM2540C-15	#

Results

Client Sample ID	3088 River Road, Conestoga PA	Collected	05/05/2023 12:40
Lab Sample ID	3301830001	Lab Receipt	05/05/2023 16:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.89		pH_Units		Field	1	05/05/2023 12:40	BGS	N
Specific Conductance, Field	1159		umhos/cm	1	Field	1	05/05/2023 12:40	BGS	N
Temperature	16.47		Deg. C		Field	1	05/05/2023 12:40	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	0.55		mg/L	0.10	EPA 200.7	1	05/22/2023 19:21	SRT	E1
Calcium, Total	0.18		mg/L	0.050	EPA 200.7	1	05/12/2023 12:40	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	05/20/2023 13:44	SRT	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	05/12/2023 12:40	SRT	D1
Magnesium, Dissolved	ND	ND	mg/L	0.10	EPA 200.7	1	05/20/2023 13:44	SRT	E1
Magnesium, Total	ND	ND	mg/L	0.050	EPA 200.7	1	05/12/2023 12:40	SRT	D1
Manganese, Dissolved	ND	ND	mg/L	0.0050	EPA 200.7	1	05/20/2023 13:44	SRT	E1
Manganese, Total	ND	ND	mg/L	0.0025	EPA 200.7	1	05/12/2023 12:40	SRT	D1
Potassium, Dissolved	2.7		mg/L	0.50	EPA 200.7	1	05/20/2023 13:44	SRT	E1
Potassium, Total	2.8		mg/L	0.25	EPA 200.7	1	05/12/2023 12:40	SRT	D1
Sodium, Dissolved	224	3	mg/L	0.50	EPA 200.7	1	05/20/2023 13:44	SRT	E1
Sodium, Total	231		mg/L	0.25	EPA 200.7	1	05/12/2023 12:40	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	05/18/2023 19:05	TMP	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:05	TMP	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:05	TMP	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:05	TMP	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:05	TMP	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:05	TMP	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:05	TMP	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:05	TMP	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:05	TMP	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:05	TMP	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:05	TMP	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:05	TMP	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:05	TMP	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:05	TMP	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:05	TMP	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:05	TMP	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	92.3%	70 – 130	05/18/2023 19:05	

WET CHEMISTRY

Results

Client Sample ID	3088 River Road, Conestoga PA	Collected	05/05/2023 12:40
Lab Sample ID	3301830001	Lab Receipt	05/05/2023 16:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	141		mg/L	5	SM2320B-2011	1	05/10/2023 23:06	NML	A
Alkalinity, Total	141	1	mg/L	5	SM2320B-2011	1	05/10/2023 23:06	NML	A
Ammonia-N	0.216		mg/L	0.100	ASTM D6919-17	10	05/13/2023 08:51	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/10/2023 13:00	KMS	C
Chloride	251		mg/L	5.0	EPA 300.0	5	05/06/2023 11:35	GMM	A
Fluoride	ND	ND	mg/L	0.50	EPA 300.0	5	05/06/2023 11:35	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	05/11/2023 18:25	PAG	I
Nitrate-N	4.9		mg/L	2.5	EPA 300.0	5	05/06/2023 11:35	GMM	A
Nitrite-N	ND	ND	mg/L	2.5	EPA 300.0	5	05/06/2023 11:35	GMM	A
pH	7.99	2	pH_Units		S4500HB-11	1	05/10/2023 23:06	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	05/17/2023 14:02	AKH	H
Specific Conductance	1150		umhos/cm	5	SM2510B-2011	1	05/10/2023 13:10	JXL	A
Sulfate	ND	ND	mg/L	5.0	EPA 300.0	5	05/06/2023 11:35	GMM	A
Total Dissolved Solids	616		mg/L	25	SM2540C-15	1	05/12/2023 17:18	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	05/11/2023 12:31	PAG	F
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	05/05/2023 23:16	NRB	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3301830001	3088 River Road, Conestoga PA	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		ASTM D6919-17	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3301830001	3088 River Road, Conestoga PA	N/A	N/A	N/A		Field	1003965
		EPA ACID	1004871	05/19/2023 14:57	MO	EPA 200.7	1005746
		EPA ACID	1004871	05/19/2023 14:57	MO	EPA 200.7	1004872
		EPA TRMD	989857	05/08/2023 18:45	ANN	EPA 200.7	995965
		N/A	N/A	N/A		EPA 524.2	1003974
		N/A	N/A	N/A		ASTM D6919-17	996679
		N/A	N/A	N/A		EPA 300.0	989154
		N/A	N/A	N/A		EPA 410.4	992358
		SW846 9066	1002552	05/17/2023 07:37	AKH	EPA 420.4	1003052
		N/A	N/A	N/A		S4500HB-11	991652
		N/A	N/A	N/A		SM2130B-2011	988752
		N/A	N/A	N/A		SM2320B-2011	991652
		N/A	N/A	N/A		SM2510B-2011	990651
		N/A	N/A	N/A		SM2540C-15	996054
		N/A	N/A	N/A		SM5310B-14	993507
		N/A	N/A	N/A		SW846 9020B	994267

5/23/2023 1:01 PM

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALS Environmental

34 Dogwood Lane • Middletown, PA 17057 • 717.944.5541 • Fax: 717.944.1430

Generated by A

3301830

Logged By: SLS
PM: SJB

1 of 1

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

(ompleted by Receiving Lab)

Client Name: LCSWMA - Hans Weber and Deb Kalbach

Address: 3088 River Road
Conestoga, PA 17516

Contact: Hans Weber and Deb Kalbach

Phone#: (717) 419-7982

Project Name/#: LCSWMA - Quarterly

Bill To: LCSWMA - Hans Weber and Deb Kalbach

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

Date Required: _____ **Approved By:** _____

Email? [ ] -Y

Fax? [ ] -Y No.: _____

Container Type	AG	AN	AN	CG	—	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

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**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
					Enter Number of Containers Per Sample or Field Results Below.									
1 3088RIVER RD	05/05/23	1240	G	DW	2	1	2	3	x	1	2	2	1	1
2. Trip Blank	05/05/23	1625	G	DW				2			DPB 5/5/23			
3														
4														
5														
6														
7														
8														
9														
10														

Cooler Temp: _____ Therm ID: _____

No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			

Cl Temp By: DPB | WO Temp (°C): 2° | Therm ID: 570

Cou

Receipt Info Completed By:	DPB	
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	
Correct Containers Provided	Y N	
Sample Label/COC Agree	Y N	
Adequate Sample Volumes	Y N	
CR6 Samples Filtered	Y N	NA
OP Samples Filtered	Y N	NA
VOA Headspace Present	Y N	NA
Voa Trip Blank	Y N	NA
NJ≤ 4 Days?	Y	N
Rad Screen (uCi)		
Courier/Tracking #:		
SDWA Compliance	Y	N
PWSID		
WV Containers 0-6°C	Y N	NA

ALS Field Services: ☐Pickup ☐Labor ☐Composite_Sampling ☐Rental_Equipment ☐Other: _____

Project Comments:

LOGGED BY(signature): _____ DATE _____ TIME _____

REVIEWED BY(signature): _____ DATE _____ TIME _____

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 R Goodell ALS	5-5-23	1625	2	5/5/23	1625
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]

Special Processing: USACE [ ] Navy [ ] [ ]

State Samples Collected In: [ ] NY [ ] NJ [X] PA [ ] NC [ ]

Reportable to PADEP? Yes [ ]

PWSID # _____

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- _____

* G=Grab; C=Composite

**Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=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 2ND QTR-2023 3100 RIVER RD
Workorder 3301832
Report ID 246173 on 5/23/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 05, 2023.

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.

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

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3301832001	3100 River Road, Conestoga, PA	Water	05/05/2023 12:55	05/05/2023 16:25	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 preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.

Detected Results Summary

Client Sample ID	3100 River Road, Conestoga, PA	Collected	05/05/2023 12:55
Lab Sample ID	3301832001	Lab Receipt	05/05/2023 16:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.09	pH_Units		Field	#
Specific Conductance, Field	261	umhos/cm	1	Field	#
Temperature	16.02	Deg. C		Field	#
METALS					
Calcium, Dissolved	15.7	mg/L	0.10	EPA 200.7	#
Calcium, Total	16.5	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	7.3	mg/L	0.10	EPA 200.7	#
Magnesium, Total	7.7	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.011	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.011	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	1.7	mg/L	0.50	EPA 200.7	#
Potassium, Total	1.8	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	17.5	mg/L	0.50	EPA 200.7	#
Sodium, Total	18.9	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	#
Ammonia-N	0.238	mg/L	0.100	ASTM D6919-17	#
Chloride	47.9	mg/L	2.0	EPA 300.0	#
Nitrate-N	3.1	mg/L	1.0	EPA 300.0	#
pH	7.04	pH_Units		S4500HB-11	#
Specific Conductance	266	umhos/cm	5	SM2510B-2011	#
Sulfate	7.4	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	162	mg/L	25	SM2540C-15	#

Results

Client Sample ID	3100 River Road, Conestoga, PA	Collected	05/05/2023 12:55
Lab Sample ID	3301832001	Lab Receipt	05/05/2023 16:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.09		pH_Units		Field	1	05/05/2023 12:55	BGS	N
Specific Conductance, Field	261		umhos/cm	1	Field	1	05/05/2023 12:55	BGS	N
Temperature	16.02		Deg. C		Field	1	05/05/2023 12:55	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	15.7		mg/L	0.10	EPA 200.7	1	05/22/2023 19:31	SRT	E1
Calcium, Total	16.5		mg/L	0.050	EPA 200.7	1	05/12/2023 12:43	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	05/20/2023 13:54	SRT	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	05/12/2023 12:43	SRT	D1
Magnesium, Dissolved	7.3		mg/L	0.10	EPA 200.7	1	05/20/2023 13:54	SRT	E1
Magnesium, Total	7.7		mg/L	0.050	EPA 200.7	1	05/12/2023 12:43	SRT	D1
Manganese, Dissolved	0.011		mg/L	0.0050	EPA 200.7	1	05/20/2023 13:54	SRT	E1
Manganese, Total	0.011		mg/L	0.0025	EPA 200.7	1	05/12/2023 12:43	SRT	D1
Potassium, Dissolved	1.7		mg/L	0.50	EPA 200.7	1	05/20/2023 13:54	SRT	E1
Potassium, Total	1.8		mg/L	0.25	EPA 200.7	1	05/12/2023 12:43	SRT	D1
Sodium, Dissolved	17.5		mg/L	0.50	EPA 200.7	1	05/20/2023 13:54	SRT	E1
Sodium, Total	18.9		mg/L	0.25	EPA 200.7	1	05/12/2023 12:43	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	05/18/2023 19:32	TMP	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:32	TMP	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:32	TMP	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:32	TMP	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:32	TMP	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:32	TMP	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:32	TMP	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:32	TMP	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:32	TMP	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:32	TMP	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:32	TMP	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:32	TMP	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:32	TMP	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:32	TMP	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:32	TMP	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:32	TMP	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	92.6%	70 – 130	05/18/2023 19:32	

WET CHEMISTRY

Results

Client Sample ID	3100 River Road, Conestoga, PA	Collected	05/05/2023 12:55
Lab Sample ID	3301832001	Lab Receipt	05/05/2023 16:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	27		mg/L	5	SM2320B-2011	1	05/10/2023 23:18	NML	A
Alkalinity, Total	27	1	mg/L	5	SM2320B-2011	1	05/10/2023 23:18	NML	A
Ammonia-N	0.238		mg/L	0.100	ASTM D6919-17	10	05/13/2023 07:55	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/10/2023 13:00	KMS	C
Chloride	47.9		mg/L	2.0	EPA 300.0	2	05/06/2023 11:45	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/06/2023 11:45	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	05/12/2023 14:02	PAG	I
Nitrate-N	3.1		mg/L	1.0	EPA 300.0	2	05/06/2023 11:45	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	05/06/2023 11:45	GMM	A
pH	7.04	2	pH_Units		S4500HB-11	1	05/10/2023 23:18	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	05/17/2023 14:05	AKH	H
Specific Conductance	266		umhos/cm	5	SM2510B-2011	1	05/10/2023 13:10	JXL	A
Sulfate	7.4		mg/L	2.0	EPA 300.0	2	05/06/2023 11:45	GMM	A
Total Dissolved Solids	162		mg/L	25	SM2540C-15	1	05/12/2023 17:18	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	05/11/2023 12:31	PAG	F
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	05/05/2023 23:16	NRB	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3301832001	3100 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		ASTM D6919-17	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3301832001	3100 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1003965
		EPA ACID	1004871	05/19/2023 14:57	MO	EPA 200.7	1005746
		EPA ACID	1004871	05/19/2023 14:57	MO	EPA 200.7	1004872
		EPA TRMD	989857	05/08/2023 18:45	ANN	EPA 200.7	995965
		N/A	N/A	N/A		EPA 524.2	1003974
		N/A	N/A	N/A		ASTM D6919-17	996679
		N/A	N/A	N/A		EPA 300.0	989154
		N/A	N/A	N/A		EPA 410.4	992358
		SW846 9066	1002552	05/17/2023 07:37	AKH	EPA 420.4	1003052
		N/A	N/A	N/A		S4500HB-11	991652
		N/A	N/A	N/A		SM2130B-2011	988752
		N/A	N/A	N/A		SM2320B-2011	991652
		N/A	N/A	N/A		SM2510B-2011	990651
		N/A	N/A	N/A		SM2540C-15	996054
		N/A	N/A	N/A		SM5310B-14	993507
		N/A	N/A	N/A		SW846 9020B	996452

ALS Environmental

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

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

3301832
Logged By: SLS
PM: SJB

1 of 1

Client Name: LCSWMA - Larry Kirchner
Address: 3100 River Road, Conestoga, PA 17516
Contact: Larry Kirchner
Phone#: (717) 584-0030
Project Name/#: LCSWMA - Quarterly
Bill To: Lancaster County Solid Waste MA

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

Date Required: ______ **Approved By:** ______
Email? [ ]-Y
Fax? [ ]-Y No.:

					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
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
Sample Description/Location (as it will appear on the lab report)	**Sample Date**	**Time**	***G or C**	****Matrix**	Enter Number of Containers Per Sample or Field Results Below.									
1 3100RIVERRD	05/05/23	1255	G	DW	2	1	2	3	X	1	2	2	1	1
2. Trip Blank	05/05/23	1625	G	DW				2			DPB 5/5/23			
3														
4														
5														
6														
7														
8														
9														
10														

(Completed by Receiving Lab)
Cooler Temp: ______ **Therm ID:** ______
No. of Coolers: ______ Y N Initial

Temp By: DPB | WO Temp (°C): 2° | Therm ID: 570

Receipt Info Completed By: DPB
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
Correct Containers Provided Y N
Sample Label/COC Agree Y N
Adequate Sample Volumes Y N
CR6 Samples Filtered Y N NA
OP Samples Filtered Y N NA
VOA Headspace Present Y N NA
Voa Trip Blank Y N NA
NJ≤ 4 Days? Y
Rad Screen (uCi) ______
Courier/Tracking #: ______
SDWA Compliance Y
PWSID
WV Containers 0-6°C Y N NA

ALS Field Services: ☐Pickup ☐Labor ☐Composite_Sampling ☐Rental_Equipment ☐Other:

Project Comments:

LOGGED BY(signature): DATE TIME
REVIEWED BY(signature): DATE TIME

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature] ALS	5-5-23	1625	2	[signature]	5/5/23	1625
3				4			
5				6			
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]

Special Processing: USACE [ ] Navy [ ] [ ]

State Samples Collected In: [ ] NY [ ] NJ [X] PA [ ] NC [ ]

Reportable to PADEP? Yes [ ]
PWSID #

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type-

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=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 2ND QTR 2023-3106 RIVER RD
Workorder 3301834
Report ID 246177 on 5/23/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 05, 2023.

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.

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

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3301834001	3106 River Road, Conestoga, PA	Water	05/05/2023 13:20	05/05/2023 16:25	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 preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.

Detected Results Summary

Client Sample ID	3106 River Road, Conestoga, PA	Collected	05/05/2023 13:20
Lab Sample ID	3301834001	Lab Receipt	05/05/2023 16:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.00	pH_Units		Field	#
Specific Conductance, Field	457	umhos/cm	1	Field	#
Temperature	14.23	Deg. C		Field	#
METALS					
Calcium, Dissolved	20.7	mg/L	0.10	EPA 200.7	#
Calcium, Total	21.4	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	12.5	mg/L	0.10	EPA 200.7	#
Magnesium, Total	13.0	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.036	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.037	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.3	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.3	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	39.2	mg/L	0.50	EPA 200.7	#
Sodium, Total	40.4	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	#
Ammonia-N	0.196	mg/L	0.100	ASTM D6919-17	#
Chloride	91.8	mg/L	2.0	EPA 300.0	#
Nitrate-N	9.3	mg/L	1.0	EPA 300.0	#
pH	6.89	pH_Units		S4500HB-11	#
Specific Conductance	462	umhos/cm	5	SM2510B-2011	#
Sulfate	7.1	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	298	mg/L	25	SM2540C-15	#

Results

Client Sample ID	3106 River Road, Conestoga, PA	Collected	05/05/2023 13:20
Lab Sample ID	3301834001	Lab Receipt	05/05/2023 16:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.00		pH_Units		Field	1	05/05/2023 13:20	BGS	N
Specific Conductance, Field	457		umhos/cm	1	Field	1	05/05/2023 13:20	BGS	N
Temperature	14.23		Deg. C		Field	1	05/05/2023 13:20	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	20.7		mg/L	0.10	EPA 200.7	1	05/22/2023 19:34	SRT	E1
Calcium, Total	21.4		mg/L	0.050	EPA 200.7	1	05/12/2023 12:53	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	05/20/2023 13:58	SRT	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	05/12/2023 12:53	SRT	D1
Magnesium, Dissolved	12.5		mg/L	0.10	EPA 200.7	1	05/20/2023 13:58	SRT	E1
Magnesium, Total	13.0		mg/L	0.050	EPA 200.7	1	05/12/2023 12:53	SRT	D1
Manganese, Dissolved	0.036		mg/L	0.0050	EPA 200.7	1	05/20/2023 13:58	SRT	E1
Manganese, Total	0.037		mg/L	0.0025	EPA 200.7	1	05/12/2023 12:53	SRT	D1
Potassium, Dissolved	2.3		mg/L	0.50	EPA 200.7	1	05/20/2023 13:58	SRT	E1
Potassium, Total	2.3		mg/L	0.25	EPA 200.7	1	05/12/2023 12:53	SRT	D1
Sodium, Dissolved	39.2		mg/L	0.50	EPA 200.7	1	05/20/2023 13:58	SRT	E1
Sodium, Total	40.4		mg/L	0.25	EPA 200.7	1	05/12/2023 12:53	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	05/18/2023 19:59	TMP	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:59	TMP	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:59	TMP	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:59	TMP	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:59	TMP	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:59	TMP	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:59	TMP	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:59	TMP	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:59	TMP	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:59	TMP	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:59	TMP	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:59	TMP	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:59	TMP	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:59	TMP	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:59	TMP	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 19:59	TMP	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	89.8%	70 – 130	05/18/2023 19:59	

WET CHEMISTRY

Results

Client Sample ID	3106 River Road, Conestoga, PA	Collected	05/05/2023 13:20
Lab Sample ID	3301834001	Lab Receipt	05/05/2023 16:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	15		mg/L	5	SM2320B-2011	1	05/10/2023 23:32	NML	A
Alkalinity, Total	15	1	mg/L	5	SM2320B-2011	1	05/10/2023 23:32	NML	A
Ammonia-N	0.196		mg/L	0.100	ASTM D6919-17	10	05/13/2023 08:09	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/10/2023 13:00	KMS	C
Chloride	91.8		mg/L	2.0	EPA 300.0	2	05/06/2023 12:38	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/06/2023 12:38	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	05/12/2023 14:02	PAG	I
Nitrate-N	9.3		mg/L	1.0	EPA 300.0	2	05/06/2023 12:38	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	05/06/2023 12:38	GMM	A
pH	6.89	2	pH_Units		S4500HB-11	1	05/10/2023 23:32	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	05/17/2023 14:09	AKH	H
Specific Conductance	462		umhos/cm	5	SM2510B-2011	1	05/10/2023 13:10	JXL	A
Sulfate	7.1		mg/L	2.0	EPA 300.0	2	05/06/2023 12:38	GMM	A
Total Dissolved Solids	298		mg/L	25	SM2540C-15	1	05/12/2023 17:18	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	05/11/2023 12:31	PAG	F
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	05/05/2023 23:16	NRB	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3301834001	3106 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		ASTM D6919-17	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	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
3301834001	3106 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1003965
		EPA ACID	1004871	05/19/2023 14:57	MO	EPA 200.7	1005746
		EPA ACID	1004871	05/19/2023 14:57	MO	EPA 200.7	1004872
		EPA TRMD	989857	05/08/2023 18:45	ANN	EPA 200.7	995965
		N/A	N/A	N/A		EPA 524.2	1003974
		N/A	N/A	N/A		ASTM D6919-17	996679
		N/A	N/A	N/A		EPA 300.0	989154
		N/A	N/A	N/A		EPA 410.4	992358
		SW846 9066	1002552	05/17/2023 07:37	AKH	EPA 420.4	1003052
		N/A	N/A	N/A		S4500HB-11	991652
		N/A	N/A	N/A		SM2130B-2011	988752
		N/A	N/A	N/A		SM2320B-2011	991652
		N/A	N/A	N/A		SM2510B-2011	990651
		N/A	N/A	N/A		SM2540C-15	996054
		N/A	N/A	N/A		SM5310B-14	993507
		N/A	N/A	N/A		SW846 9020B	996452

ALS Environmental

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

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

3301834
Logged By: SLS
PM: SJB

1 of 1

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 [X] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required: ______ **Approved By:** ______
Email? [ ] -Y
Fax? [ ] -Y No.:

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 — Enter Number of Containers Per Sample or Field Results Below.

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**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
1 3106RIVERRD	05/05/23	1320	G	DW	2	1	2	3	x	1	2	2	1	1
2. Trip Blank	05/05/23	1625	G	DW				2			DPB 5/5/23			
3														
4														
5														
6														
7														
8														
9														
10														

(For Use by Receiving Lab)
Cooler Temp: ____ Therm ID: ____
No. of Coolers: ____ Y N Initial
Custody Seals Present? [ ] [ ]

COC/L — Temp By: DPB | WO Temp (°C): 2° | Therm ID: 590

	DPB
Receipt Info Completed By:	
Cooler Custody Seal Intact	Y N NA (NA)
Sample Custody Seal Intact	Y N NA (NA)
Received on Ice	Y N NA (Y)
Cooler & Samples Intact	Y N (Y)
Correct Containers Provided	Y N (Y)
Sample Label/COC Agree	Y N (Y)
Adequate Sample Volumes	Y N (Y)
CR6 Samples Filtered	Y N NA (NA)
OP Samples Filtered	Y N NA (NA)
VOA Headspace Present	Y N NA (NA)
Voa Trip Blank	Y N NA (NA)
NJ≤ 4 Days?	Y N (N)
Rad Screen (uCi)	
Courier/Tracking #:	
SDWA Compliance	Y N (N)
PWSID	
WV Containers 0-6°C	Y N NA (NA)

Courier/T

ALS Field Services: ☐Pickup ☐Labor ☐Composite_Sampling ☐Rental_Equipment ☐Other: ______

Project Comments:

LOGGED BY(signature): ____ DATE ____ TIME ____
REVIEWED BY(signature): ____ DATE ____ TIME ____

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature] ALS	5-5-23	1625	2	[signature]	5/5/23	1625
3				4			
5				6			
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]

Special Processing: USACE [ ] Navy [ ] [ ]

State Samples Collected In: [ ] NY [ ] NJ [X] PA [ ] NC [ ]

Reportable to PADEP? Yes [ ]
PWSID # ______

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- ______

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

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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 2ND QTR 2023-3125 RIVER RD
Workorder 3301835
Report ID 246181 on 5/23/2023

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 05, 2023.

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.

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

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3301835001	3125 River Road, Conestoga, PA	Water	05/05/2023 13:40	05/05/2023 16:25	BGS	Analytical Laboratory Service
3301835002	Field Blank	Water	05/05/2023 14:44	05/05/2023 16:25	BGS	Analytical Laboratory Service
3301835003	Trip Blank	Water	05/05/2023 16:25	05/05/2023 16:25	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 preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.

Detected Results Summary

Client Sample ID	3125 River Road, Conestoga, PA	Collected	05/05/2023 13:40
Lab Sample ID	3301835001	Lab Receipt	05/05/2023 16:25

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	8.01	pH_Units		Field	#
Specific Conductance, Field	706	umhos/cm	1	Field	#
Temperature	15.02	Deg. C		Field	#
METALS					
Calcium, Dissolved	0.65	mg/L	0.10	EPA 200.7	#
Calcium, Total	0.68	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	0.27	mg/L	0.10	EPA 200.7	#
Magnesium, Total	0.29	mg/L	0.050	EPA 200.7	#
Potassium, Dissolved	3.6	mg/L	0.50	EPA 200.7	#
Potassium, Total	3.8	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	141	mg/L	0.50	EPA 200.7	#
Sodium, Total	146	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	169	mg/L	5	SM2320B-2011	#
Alkalinity, Total	169	mg/L	5	SM2320B-2011	#
Ammonia-N	0.210	mg/L	0.100	ASTM D6919-17	#
Chloride	79.5	mg/L	2.0	EPA 300.0	#
Nitrate-N	4.1	mg/L	1.0	EPA 300.0	#
pH	8.11	pH_Units		S4500HB-11	#
Specific Conductance	691	umhos/cm	5	SM2510B-2011	#
Sulfate	9.0	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	390	mg/L	25	SM2540C-15	#

Detected Results Summary

Client Sample ID	Field Blank	Collected	05/05/2023 14:44
Lab Sample ID	3301835002	Lab Receipt	05/05/2023 16:25

Compound	Result	Units	RDL	Method	Flag
VOLATILE ORGANICS					
Methylene Chloride	0.99	ug/L	0.50	EPA 524.2	#

Results

Client Sample ID	3125 River Road, Conestoga, PA	Collected	05/05/2023 13:40
Lab Sample ID	3301835001	Lab Receipt	05/05/2023 16:25

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	8.01		pH_Units		Field	1	05/05/2023 13:40	BGS	N
Specific Conductance, Field	706		umhos/cm	1	Field	1	05/05/2023 13:40	BGS	N
Temperature	15.02		Deg. C		Field	1	05/05/2023 13:40	BGS	N

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	0.65		mg/L	0.10	EPA 200.7	1	05/22/2023 19:44	SRT	E1
Calcium, Total	0.68		mg/L	0.050	EPA 200.7	1	05/12/2023 12:56	SRT	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	05/20/2023 14:01	SRT	E1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	05/12/2023 12:56	SRT	D1
Magnesium, Dissolved	0.27		mg/L	0.10	EPA 200.7	1	05/20/2023 14:01	SRT	E1
Magnesium, Total	0.29		mg/L	0.050	EPA 200.7	1	05/12/2023 12:56	SRT	D1
Manganese, Dissolved	ND	ND	mg/L	0.0050	EPA 200.7	1	05/20/2023 14:01	SRT	E1
Manganese, Total	ND	ND	mg/L	0.0025	EPA 200.7	1	05/12/2023 12:56	SRT	D1
Potassium, Dissolved	3.6		mg/L	0.50	EPA 200.7	1	05/20/2023 14:01	SRT	E1
Potassium, Total	3.8		mg/L	0.25	EPA 200.7	1	05/12/2023 12:56	SRT	D1
Sodium, Dissolved	141		mg/L	0.50	EPA 200.7	1	05/20/2023 14:01	SRT	E1
Sodium, Total	146		mg/L	0.25	EPA 200.7	1	05/12/2023 12:56	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	05/18/2023 20:26	TMP	K
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 20:26	TMP	K
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 20:26	TMP	K
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 20:26	TMP	K
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 20:26	TMP	K
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 20:26	TMP	K
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 20:26	TMP	K
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 20:26	TMP	K
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 20:26	TMP	K
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 20:26	TMP	K
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 20:26	TMP	K
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 20:26	TMP	K
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 20:26	TMP	K
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 20:26	TMP	K
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 20:26	TMP	K
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 20:26	TMP	K

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	90%	70 – 130	05/18/2023 20:26	

WET CHEMISTRY

Results

Client Sample ID	3125 River Road, Conestoga, PA	Collected	05/05/2023 13:40
Lab Sample ID	3301835001	Lab Receipt	05/05/2023 16:25

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	169		mg/L	5	SM2320B-2011	1	05/10/2023 23:43	NML	A
Alkalinity, Total	169	1	mg/L	5	SM2320B-2011	1	05/10/2023 23:43	NML	A
Ammonia-N	0.210		mg/L	0.100	ASTM D6919-17	10	05/13/2023 08:23	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	05/10/2023 13:00	KMS	C
Chloride	79.5		mg/L	2.0	EPA 300.0	2	05/06/2023 12:48	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	05/06/2023 12:48	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	05/12/2023 14:02	PAG	I
Nitrate-N	4.1		mg/L	1.0	EPA 300.0	2	05/06/2023 12:48	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	05/06/2023 12:48	GMM	A
pH	8.11	2	pH_Units		S4500HB-11	1	05/10/2023 23:43	NML	A
Phenolics	ND	ND	mg/L	0.004	EPA 420.4	1	05/17/2023 14:12	AKH	H
Specific Conductance	691		umhos/cm	5	SM2510B-2011	1	05/10/2023 13:10	JXL	A
Sulfate	9.0		mg/L	2.0	EPA 300.0	2	05/06/2023 12:48	GMM	A
Total Dissolved Solids	390		mg/L	25	SM2540C-15	1	05/12/2023 17:18	GJB	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	05/11/2023 12:31	PAG	F
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	05/05/2023 23:16	NRB	A

Results

Client Sample ID	Field Blank	Collected	05/05/2023 14:44
Lab Sample ID	3301835002	Lab Receipt	05/05/2023 16:25

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	05/18/2023 12:44	TMP	A
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 12:44	TMP	A
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 12:44	TMP	A
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 12:44	TMP	A
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 12:44	TMP	A
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 12:44	TMP	A
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 12:44	TMP	A
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 12:44	TMP	A
Methylene Chloride	0.99		ug/L	0.50	EPA 524.2	1	05/18/2023 12:44	TMP	A
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 12:44	TMP	A
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 12:44	TMP	A
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 12:44	TMP	A
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 12:44	TMP	A
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 12:44	TMP	A
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 12:44	TMP	A
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 12:44	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	93.6%	70 – 130	05/18/2023 12:44	

Results

Client Sample ID	Trip Blank	Collected	05/05/2023 16:25
Lab Sample ID	3301835003	Lab Receipt	05/05/2023 16:25

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	05/18/2023 13:11	TMP	A
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 13:11	TMP	A
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 13:11	TMP	A
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 13:11	TMP	A
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 13:11	TMP	A
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 13:11	TMP	A
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 13:11	TMP	A
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 13:11	TMP	A
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 13:11	TMP	A
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 13:11	TMP	A
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 13:11	TMP	A
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 13:11	TMP	A
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 13:11	TMP	A
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 13:11	TMP	A
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 13:11	TMP	A
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	05/18/2023 13:11	TMP	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	93.2%	70 – 130	05/18/2023 13:11	

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3301835001	3125 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		ASTM D6919-17	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		SW846 9020B	N/A	
3301835002	Field Blank	EPA 524.2	N/A	
3301835003	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
3301835001	3125 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1003965
		EPA ACID	1004871	05/19/2023 14:57	MO	EPA 200.7	1005746
		EPA ACID	1004871	05/19/2023 14:57	MO	EPA 200.7	1004872
		EPA TRMD	989857	05/08/2023 18:45	ANN	EPA 200.7	995965
		N/A	N/A	N/A		EPA 524.2	1003974
		N/A	N/A	N/A		ASTM D6919-17	996679
		N/A	N/A	N/A		EPA 300.0	989154
		N/A	N/A	N/A		EPA 410.4	992358
		SW846 9066	1002552	05/17/2023 07:37	AKH	EPA 420.4	1003052
		N/A	N/A	N/A		S4500HB-11	991652
		N/A	N/A	N/A		SM2130B-2011	988752
		N/A	N/A	N/A		SM2320B-2011	991652
		N/A	N/A	N/A		SM2510B-2011	990651
		N/A	N/A	N/A		SM2540C-15	996054
		N/A	N/A	N/A		SM5310B-14	993507
		N/A	N/A	N/A		SW846 9020B	996452
3301835002	Field Blank	N/A	N/A	N/A		EPA 524.2	1003974
3301835003	Trip Blank	N/A	N/A	N/A		EPA 524.2	1003974

ALS Environmental

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3301835

Logged By: SLS

PM: SJB

1 of 1

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

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

Date Required: _____ **Approved By:** _____

Email? [ ] -Y

Fax? [ ] -Y No.: _____

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	500 ml
Preservative	HCl	H2SO4	H2SO4	HCl	—	H2SO4	HNO3	HNO3	None	None

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**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
					Enter Number of Containers Per Sample or Field Results Below.									
1 3125RIVERRD	05/05/23	1340	G	DW	2	1	2	3	X	1	2	2	1	1
2. Field Blank	05/05/23	1444	G	DW				3						
3. Trip Blank	05/05/23	1625	G	DW				2						
4														
5														
6														
7														
8														
9														
10														

DPB 5/5/23

Cooler Temp: _____ Therm ID: _____

No. of Coolers: _____ Y N Initial

Custody Seals Present? [ ] [ ]

(if present) Seals Intact? [ ] [ ]

Temp By: DPB | WO Temp (°C): 2° | Therm ID: 570

Receipt Info Completed By: DPB

Cooler Custody Seal Intact Y N NA

Sample Custody Seal Intact Y N NA

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

CR6 Samples Filtered Y N NA

OP Samples Filtered Y N NA

VOA Headspace Present Y N NA

Voa Trip Blank Y N

NJ≤ 4 Days?

Rad Screen (uCi) _____

Courier/Tracking #: _____

SDWA Compliance Y N

PWSID

WV Containers 0-6°C Y N NA

ALS Field Services: [ ] Pickup [ ] Labor [ ] Composite_Sampling [ ] Rental_Equipment [ ] Other: _____

Project Comments:

LOGGED BY(signature): _____ DATE _____ TIME _____

REVIEWED BY(signature): _____ DATE _____ TIME _____

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 DPB ALS	5-5-23	1625	2	5/5/23	1625
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]

Special Processing: USACE [ ] Navy [ ] [ ]

State Samples Collected In: [ ] NY [ ] NJ [X] PA [ ] NC [ ]

Reportable to PADEP? Yes [ ] PWSID # _____

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- _____

* G=Grab; C=Composite

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