2540-FM-BWM0060 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
03/21/2024
DEP USE ONLY
Date Received

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

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

General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: LCSWMA

Address: 3044 RIVER ROAD

Phone No.:

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

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

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

Total Well Depth: ft.

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

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

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

Sample Date:(mm/dd/yy) 02/09/2024 Sample Collection Time: 9:43 AM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 02/23/2024

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: 02/09/2024

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	15	SM20-2321
CALCIUM, TOTAL	13.9	EPA 200.7
CALCIUM, DISSOLVED	15.6	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	26.2	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	9.2	EPA 200.7
MAGNESIUM, DISSOLVED	10	EPA 200.7
MANGANESE, TOTAL (ug/l)	10	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	11	EPA 200.7
NITRATE-NITROGEN	26 E	EPA 300

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 02/09/2024

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)	6.25	FIELD
pH-LAB (SU)	6.82	SM4500B
POTASSIUM, TOTAL	2.3	EPA 200.7
POTASSIUM, DISSOLVED	2.4	EPA 200.7
SODIUM, TOTAL	7.9	EPA 200.7
SODIUM, DISSOLVED	8.2	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	227	FIELD
SPEC. COND., LAB (umhos/cm)	226	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	15	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	143	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.4	SM 2130B

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 02/09/2024

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
03/21/2024
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 ° 57 ' 29.85 " Longitude: 76 ° 26 ' 11.45 "

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

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

Total Well Depth: ft.

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

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

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

Sample Date:(mm/dd/yy) 02/09/2024 Sample Collection Time: 10:03 AM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 02/23/2024

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: 02/09/2024

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	9	SM20-2321
CALCIUM, TOTAL	17.7	EPA 200.7
CALCIUM, DISSOLVED	20.1	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	19.1	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	7.3	EPA 200.7
MAGNESIUM, DISSOLVED	8	EPA 200.7
MANGANESE, TOTAL (ug/l)	11	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	11	EPA 200.7
NITRATE-NITROGEN	17.5	EPA 300

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS MILLER

Sample Date: 02/09/2024

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)	7.15	FIELD
pH-LAB (SU)	6.52	SM4500B
POTASSIUM, TOTAL	1.5	EPA 200.7
POTASSIUM, DISSOLVED	1.6	EPA 200.7
SODIUM, TOTAL	8.2	EPA 200.7
SODIUM, DISSOLVED	8.5	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	294	FIELD
SPEC. COND., LAB (umhos/cm)	238	EPA 120.1
SULFATE	3	EPA 300
ALKALINITY	9	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	154	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS MILLER

Sample Date: 02/09/2024

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
03/21/2024
DEP USE ONLY
Date Received

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

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General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: LCSWMA

Address: 3056 RIVER ROAD

Phone No.:

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

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

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

Total Well Depth: ft.

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

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

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

Sample Date:(mm/dd/yy) 02/09/2024 Sample Collection Time: 10:22 AM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 02/23/2024

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: 02/09/2024

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	13	SM20-2321
CALCIUM, TOTAL	12.7	EPA 200.7
CALCIUM, DISSOLVED	14.3	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	23.3	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	11.9	EPA 200.7
MAGNESIUM, DISSOLVED	12.5	EPA 200.7
MANGANESE, TOTAL (ug/l)	75	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	78	EPA 200.7
NITRATE-NITROGEN	16	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: 02/09/2024

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)	6.48	FIELD
pH-LAB (SU)	6.74	SM4500B
POTASSIUM, TOTAL	2.2	EPA 200.7
POTASSIUM, DISSOLVED	2.3	EPA 200.7
SODIUM, TOTAL	8.5	EPA 200.7
SODIUM, DISSOLVED	8.6	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	305	FIELD
SPEC. COND., LAB (umhos/cm)	241	EPA 120.1
SULFATE	2 ND	EPA 300
ALKALINITY	13	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	143	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.35	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: 02/09/2024

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
03/21/2024
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) 02/09/2024 Sample Collection Time: 11:29 AM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 02/23/2024

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: 02/09/2024

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	5	SM20-2321
CALCIUM, TOTAL	10.3	EPA 200.7
CALCIUM, DISSOLVED	11.8	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	16.5	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	10.2	EPA 200.7
MAGNESIUM, DISSOLVED	11.7	EPA 200.7
MANGANESE, TOTAL (ug/l)	100	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	100	EPA 200.7
NITRATE-NITROGEN	15.8	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: 02/09/2024

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)	6.27	FIELD
pH-LAB (SU)	6.21	SM4500B
POTASSIUM, TOTAL	2.6	EPA 200.7
POTASSIUM, DISSOLVED	2.6	EPA 200.7
SODIUM, TOTAL	8.2	EPA 200.7
SODIUM, DISSOLVED	8.4	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	364	FIELD
SPEC. COND., LAB (umhos/cm)	227	EPA 120.1
SULFATE	11.4	EPA 300
ALKALINITY	5	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	124	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 02/09/2024

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
03/21/2024
DEP USE ONLY
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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) 02/09/2024 Sample Collection Time: 11:46 AM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 02/23/2024

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: 02/09/2024

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	9	SM20-2321
CALCIUM, TOTAL	12.8	EPA 200.7
CALCIUM, DISSOLVED	14.5	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	43.1	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	30 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	7.5	EPA 200.7
MAGNESIUM, DISSOLVED	8.6	EPA 200.7
MANGANESE, TOTAL (ug/l)	140	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	150	EPA 200.7
NITRATE-NITROGEN	10	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: 02/09/2024

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)	6.18	FIELD
pH-LAB (SU)	6.6	SM4500B
POTASSIUM, TOTAL	3.4	EPA 200.7
POTASSIUM, DISSOLVED	3.3	EPA 200.7
SODIUM, TOTAL	20.2	EPA 200.7
SODIUM, DISSOLVED	20.7	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	264	FIELD
SPEC. COND., LAB (umhos/cm)	276	EPA 120.1
SULFATE	13.2	EPA 300
ALKALINITY	9	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	158	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS SENSENICH

Sample Date: 02/09/2024

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
03/21/2024
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) 02/09/2024 Sample Collection Time: 1:45 PM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 02/23/2024

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: 02/09/2024

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	23	SM20-2321
CALCIUM, TOTAL	9.5	EPA 200.7
CALCIUM, DISSOLVED	10.7	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	28.7	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	5	EPA 200.7
MAGNESIUM, DISSOLVED	5.6	EPA 200.7
MANGANESE, TOTAL (ug/l)	22	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	24	EPA 200.7
NITRATE-NITROGEN	2.5 ND	EPA 300

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 02/09/2024

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
NITRITE - NITROGEN	2.5 ND	EPA 300
pH-FIELD (SU)	6.86	FIELD
pH-LAB (SU)	6.63	SM4500B
POTASSIUM, TOTAL	1.9	EPA 200.7
POTASSIUM, DISSOLVED	1.7	EPA 200.7
SODIUM, TOTAL	11.8	EPA 200.7
SODIUM, DISSOLVED	12.1	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	789	FIELD
SPEC. COND., LAB (umhos/cm)	172	EPA 120.1
SULFATE	8.6	EPA 300
ALKALINITY	23	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	92	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS LCSWMA

Sample Date: 02/09/2024

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
03/21/2024
DEP USE ONLY
Date Received

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

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

General Reference: Act 101 Section 1103

SECTION A. SITE IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Manage

Site Name: Frey Farm Landfill

Facility ID (as issued by DEP): 101389

SECTION B. PRIVATE WATER SUPPLY INFORMATION

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

Facility Name: Frey Farm Landfill

County: Lancaster County

Township or Municipality: MANOR TOWNSHIP

Landowner Name: WEBER

Address: 3088 RIVER ROAD

Phone No.:

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

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

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

Total Well Depth: ft.

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

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

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

Sample Date:(mm/dd/yy) 02/09/2024 Sample Collection Time: 12:05 PM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 02/24/2024

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: 02/09/2024

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	146	SM20-2321
CALCIUM, TOTAL	5	EPA 200.7
CALCIUM, DISSOLVED	5.3	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	414	EPA 300
FLUORIDE	0.5 ND	EPA 300
IRON, TOTAL (ug/l)	60 ND	EPA 200.7
IRON, DISSOLVED (ug/l)	60 ND	EPA 200.7
MAGNESIUM, TOTAL	1.6	EPA 200.7
MAGNESIUM, DISSOLVED	1.8	EPA 200.7
MANGANESE, TOTAL (ug/l)	5 ND	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	5 ND	EPA 200.7
NITRATE-NITROGEN	8.1	EPA 300

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS WEBER

Sample Date: 02/09/2024

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)	7.95	FIELD
pH-LAB (SU)	8.04	SM4500B
POTASSIUM, TOTAL	167	EPA 200.7
POTASSIUM, DISSOLVED	177	EPA 200.7
SODIUM, TOTAL	156	EPA 200.7
SODIUM, DISSOLVED	163	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	824	FIELD
SPEC. COND., LAB (umhos/cm)	1470	EPA 120.1
SULFATE	5 ND	EPA 300
ALKALINITY	146	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	780	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS WEBER

Sample Date: 02/09/2024

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
03/21/2024
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 ° 57 ' 17.9 " Longitude: 76 ° 26 ' 6.28 "

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

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

Total Well Depth: ft.

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

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

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

Sample Date:(mm/dd/yy) 02/09/2024 Sample Collection Time: 12:23 PM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 02/26/2024

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: 02/09/2024

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	24	SM20-2321
CALCIUM, TOTAL	13.5	EPA 200.7
CALCIUM, DISSOLVED	13.8	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	40.8	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	6.4	EPA 200.7
MAGNESIUM, DISSOLVED	6.6	EPA 200.7
MANGANESE, TOTAL (ug/l)	7.4	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	8.6	EPA 200.7
NITRATE-NITROGEN	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 KIRCHNER

Sample Date: 02/09/2024

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)	7.02	FIELD
pH-LAB (SU)	6.98	SM4500B
POTASSIUM, TOTAL	1.4	EPA 200.7
POTASSIUM, DISSOLVED	1.4	EPA 200.7
SODIUM, TOTAL	14.7	EPA 200.7
SODIUM, DISSOLVED	15.5	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	223	FIELD
SPEC. COND., LAB (umhos/cm)	218	EPA 120.1
SULFATE	7.1	EPA 300
ALKALINITY	24	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	127	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS KIRCHNER

Sample Date: 02/09/2024

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
03/21/2024
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 ° 57 ' 17.27 " Longitude: 76 ° 26 ' 5.6 "

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

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

Total Well Depth: ft.

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

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

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

Sample Date:(mm/dd/yy) 02/09/2024 Sample Collection Time: 1:14 PM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 02/26/2024

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: 02/09/2024

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	15	SM20-2321
CALCIUM, TOTAL	17.5	EPA 200.7
CALCIUM, DISSOLVED	17.9	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	81.1	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	10.9	EPA 200.7
MAGNESIUM, DISSOLVED	11.1	EPA 200.7
MANGANESE, TOTAL (ug/l)	35	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	34	EPA 200.7
NITRATE-NITROGEN	8.6	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 FRY

Sample Date: 02/09/2024

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)	7.08	FIELD
pH-LAB (SU)	7.12	SM4500B
POTASSIUM, TOTAL	1.7	EPA 200.7
POTASSIUM, DISSOLVED	1.7	EPA 200.7
SODIUM, TOTAL	32.6	EPA 200.7
SODIUM, DISSOLVED	33.2	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	391	FIELD
SPEC. COND., LAB (umhos/cm)	383	EPA 120.1
SULFATE	6.5	EPA 300
ALKALINITY	15	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	212	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3	SM 2130B

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS FRY

Sample Date: 02/09/2024

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
03/21/2024
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) 02/09/2024 Sample Collection Time: 1:33 PM

Laboratory(ies) Performing Analysis (include address and phone number): ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057 (717) 944-5541

Lab Accreditation Number(s): 22-293

Lab Analysis Date: 02/23/2024

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: 02/09/2024

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

PARAMETER	VALUE	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	SM4500D
BICARBONATE ALKALINITY	166	SM20-2321
CALCIUM, TOTAL	60	EPA 200.7
CALCIUM, DISSOLVED	64.5	EPA 200.7
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.2
CHLORIDE	102	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	14.8	EPA 200.7
MAGNESIUM, DISSOLVED	15.5	EPA 200.7
MANGANESE, TOTAL (ug/l)	38	EPA 200.7
MANGANESE, DISSOLVED (ug/l)	27	EPA 200.7
NITRATE-NITROGEN	5.7	EPA 300

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS BECK

Sample Date: 02/09/2024

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)	8.07	FIELD
pH-LAB (SU)	8.16	SM4500B
POTASSIUM, TOTAL	6.9	EPA 200.7
POTASSIUM, DISSOLVED	6.9	EPA 200.7
SODIUM, TOTAL	48.8	EPA 200.7
SODIUM, DISSOLVED	50	EPA 200.7
SPEC. COND., FIELD (umhos/cm)	717	FIELD
SPEC. COND., LAB (umhos/cm)	707	EPA 120.1
SULFATE	18.3	EPA 300
ALKALINITY	166	SM20-2320B
TDS (TOT. DISSOLVED SOLIDS)	382	SM20-2540C
TOC (TOTAL ORGANIC CARBON)	0.57	SM20-5310B
TOTAL PHENOLICS (ug/l)	5 ND	EPA 420.4
TURBIDITY (NTU)	0.3 ND	SM 2130B

T Please indicate detection limit if analyte is not detected.

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

Facility I.D. Number: 101389

Monitoring Point I.D. No.: PS BECK

Sample Date: 02/09/2024

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

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

T Please indicate detection limit if analyte is not detected.

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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

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

Project 1ST QTR 2024 3044 RIVER RD
Workorder 3345050
Report ID 304126 on 2/29/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Feb 09, 2024.

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

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

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

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3345050001	3044 River Road, Conestoga, PA	Water	02/09/2024 09:43	02/09/2024 16:40	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, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
E	Result reported exceeds instrument calibration
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The sample was originally run within hold time, but required further analysis that exceeded hold time.
3	This sample was reran out of hold within the instrument's calibration range, for the analyte Nitrate/Nitrite -N, and confirms the initial in-hold reported result.
4	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.

Detected Results Summary

Client Sample ID	3044 River Road, Conestoga, PA	Collected	02/09/2024 09:43
Lab Sample ID	3345050001	Lab Receipt	02/09/2024 16:40

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.25	pH_Units		Field	#
Specific Conductance, Field	227	umhos/cm	1	Field	#
Temperature	13.47	Deg. C		Field	#
METALS					
Calcium, Dissolved	15.6	mg/L	0.10	EPA 200.7	#
Calcium, Total	13.9	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	10.0	mg/L	0.10	EPA 200.7	#
Magnesium, Total	9.2	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.011	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.010	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.4	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.3	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	8.2	mg/L	0.50	EPA 200.7	#
Sodium, Total	7.9	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	15	mg/L	5	SM2320B-2011	#
Alkalinity, Total	15	mg/L	5	SM2320B-2011	#
Chloride	26.2	mg/L	2.0	EPA 300.0	#
Nitrate-N	26.0	mg/L	1.0	EPA 300.0	#
pH	6.82	pH_Units		S4500HB-11	#
Specific Conductance	226	umhos/cm	5	SM2510B-2011	#
Total Dissolved Solids	143	mg/L	25	SM2540C-15	#
Turbidity	0.40	NTU	0.30	SM2130B-2011	#

Results

Client Sample ID	3044 River Road, Conestoga, PA	Collected	02/09/2024 09:43
Lab Sample ID	3345050001	Lab Receipt	02/09/2024 16:40

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.25		pH_Units		Field	1	02/09/2024 09:43	BGS	P
Specific Conductance, Field	227		umhos/cm	1	Field	1	02/09/2024 09:43	BGS	P
Temperature	13.47		Deg. C		Field	1	02/09/2024 09:43	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	15.6		mg/L	0.10	EPA 200.7	1	02/13/2024 12:31	AXW	F1
Calcium, Total	13.9		mg/L	0.050	EPA 200.7	1	02/23/2024 13:28	AXW	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	02/13/2024 12:31	AXW	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	02/23/2024 13:28	AXW	D1
Magnesium, Dissolved	10.0		mg/L	0.10	EPA 200.7	1	02/13/2024 12:31	AXW	F1
Magnesium, Total	9.2		mg/L	0.050	EPA 200.7	1	02/23/2024 13:28	AXW	D1
Manganese, Dissolved	0.011		mg/L	0.0050	EPA 200.7	1	02/13/2024 12:31	AXW	F1
Manganese, Total	0.010		mg/L	0.0025	EPA 200.7	1	02/23/2024 13:28	AXW	D1
Potassium, Dissolved	2.4		mg/L	0.50	EPA 200.7	1	02/13/2024 12:31	AXW	F1
Potassium, Total	2.3		mg/L	0.25	EPA 200.7	1	02/23/2024 13:28	AXW	D1
Sodium, Dissolved	8.2		mg/L	0.50	EPA 200.7	1	02/13/2024 12:31	AXW	F1
Sodium, Total	7.9		mg/L	0.25	EPA 200.7	1	02/23/2024 13:28	AXW	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	02/20/2024 18:26	ILY	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:26	ILY	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:26	ILY	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:26	ILY	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:26	ILY	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:26	ILY	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:26	ILY	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:26	ILY	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:26	ILY	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:26	ILY	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:26	ILY	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:26	ILY	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:26	ILY	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:26	ILY	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:26	ILY	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:26	ILY	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	86.5%	70 – 130	02/20/2024 18:26	

WET CHEMISTRY

Results

Client Sample ID	3044 River Road, Conestoga, PA	Collected	02/09/2024 09:43
Lab Sample ID	3345050001	Lab Receipt	02/09/2024 16:40

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	15		mg/L	5	SM2320B-2011	1	02/21/2024 15:40	KMV	A
Alkalinity, Total	15	1	mg/L	5	SM2320B-2011	1	02/21/2024 15:40	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	02/15/2024 16:40	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	02/14/2024 14:53	KMS	C
Chloride	26.2		mg/L	2.0	EPA 300.0	2	02/10/2024 19:02	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	02/10/2024 19:02	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	02/22/2024 16:32	PAG	K
Nitrate-N	26.0	E,2,3	mg/L	1.0	EPA 300.0	2	02/10/2024 19:02	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	02/10/2024 19:02	GMM	A
pH	6.82	4	pH_Units		S4500HB-11	1	02/21/2024 15:40	KMV	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	02/21/2024 18:28	AKH	J
Specific Conductance	226		umhos/cm	5	SM2510B-2011	1	02/22/2024 17:45	BLP	A
Sulfate	ND	ND	mg/L	2.0	EPA 300.0	2	02/10/2024 19:02	GMM	A
Total Dissolved Solids	143		mg/L	25	SM2540C-15	1	02/15/2024 15:30	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	02/13/2024 22:25	PAG	H
Turbidity	0.40		NTU	0.30	SM2130B-2011	1	02/10/2024 07:04	NPF	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3345050001	3044 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		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
3345050001	3044 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1141973
		EPA ACID	1137019	02/13/2024 10:45	AXW	EPA 200.7	1137020
		EPA TRMD	1137300	02/13/2024 21:57	ANN	EPA 200.7	1144401
		N/A	N/A	N/A		EPA 524.2	1141870
		N/A	N/A	N/A		EPA 300.0	1135704
		N/A	N/A	N/A		EPA 410.4	1138068
		SW846 9066	1140403	02/21/2024 09:02	AKH	EPA 420.4	1142717
		N/A	N/A	N/A		S4500HB-11	1142742
		N/A	N/A	N/A		SM 4500-NH3G	1138121
		N/A	N/A	N/A		SM2130B-2011	1135700
		N/A	N/A	N/A		SM2320B-2011	1142742
		N/A	N/A	N/A		SM2510B-2011	1143406
		N/A	N/A	N/A		SM2540C-15	1138422
		N/A	N/A	N/A		SM5310B-14	1137115
		N/A	N/A	N/A		SW846 9020B	1143312

ALS Environmental

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

COC

ALS

3345050

Logged By: SLS

PM: SJB

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.: _____

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	Container Type	Container Size	Preservative	TOC	O-OH	TOX	EPA 524.2 - Form 52	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3
					AG	AN	AN	CG	----	PL	PL	PL	PL	PL			
					40 ml	125 ml	250 ml	40 ml	----	250 ml	125 ml	125 ml	500 ml	500 ml			
					HCl	H2SO4	H2SO4	ASC/HCl	----	H2SO4	HNO3	HNO3	None	None			
					ANALYSES/METHOD REQUESTED												
					Enter Number of Containers Per Sample or Field Results Below.												
1 3044RIVERRD	02/09/24	0943	G	DW	2	1	2	3	X	1	2	2	1	1			
2. Trip Blank	02/09/24	1640	G	DI				2									
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

Cooler Temp: 2 Therm ID: _____

No. of Coolers: _____ Y N Initial

Custody Seals Present? [ ] [ ]

Temp By: DAG WO Temp (°C): 2 Therm ID: 571

Receipt Info Completed By: DAG

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 Trip Blank Y N NA

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 [signature] ALS	2-9-24	1640	2 [signature]	2/9/24	1640
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- _____

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

Rev 8/04

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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

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

Project 1ST QTR 2024 3052 RIVER RD
Workorder 3345049
Report ID 304115 on 2/29/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Feb 09, 2024.

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

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

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3345049001	3052 River Road, Conestoga, PA	Water	02/09/2024 10:03	02/09/2024 16:40	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, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

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

Detected Results Summary

Client Sample ID	3052 River Road, Conestoga, PA	Collected	02/09/2024 10:03
Lab Sample ID	3345049001	Lab Receipt	02/09/2024 16:40

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.15	pH_Units		Field	#
Specific Conductance, Field	294	umhos/cm	1	Field	#
Temperature	13.51	Deg. C		Field	#
METALS					
Calcium, Dissolved	20.1	mg/L	0.10	EPA 200.7	#
Calcium, Total	17.7	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	8.0	mg/L	0.10	EPA 200.7	#
Magnesium, Total	7.3	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	1.6	mg/L	0.50	EPA 200.7	#
Potassium, Total	1.5	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	8.5	mg/L	0.50	EPA 200.7	#
Sodium, Total	8.2	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	#
Chloride	19.1	mg/L	2.0	EPA 300.0	#
Nitrate-N	17.5	mg/L	1.0	EPA 300.0	#
pH	6.52	pH_Units		S4500HB-11	#
Specific Conductance	238	umhos/cm	5	SM2510B-2011	#
Sulfate	3.0	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	154	mg/L	25	SM2540C-15	#

Results

Client Sample ID	3052 River Road, Conestoga, PA	Collected	02/09/2024 10:03
Lab Sample ID	3345049001	Lab Receipt	02/09/2024 16:40

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.15		pH_Units		Field	1	02/09/2024 10:03	BGS	P
Specific Conductance, Field	294		umhos/cm	1	Field	1	02/09/2024 10:03	BGS	P
Temperature	13.51		Deg. C		Field	1	02/09/2024 10:03	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	20.1		mg/L	0.10	EPA 200.7	1	02/13/2024 12:32	AXW	F1
Calcium, Total	17.7		mg/L	0.050	EPA 200.7	1	02/23/2024 13:27	AXW	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	02/13/2024 12:32	AXW	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	02/23/2024 13:27	AXW	D1
Magnesium, Dissolved	8.0		mg/L	0.10	EPA 200.7	1	02/13/2024 12:32	AXW	F1
Magnesium, Total	7.3		mg/L	0.050	EPA 200.7	1	02/23/2024 13:27	AXW	D1
Manganese, Dissolved	0.011		mg/L	0.0050	EPA 200.7	1	02/13/2024 12:32	AXW	F1
Manganese, Total	0.011		mg/L	0.0025	EPA 200.7	1	02/23/2024 13:27	AXW	D1
Potassium, Dissolved	1.6		mg/L	0.50	EPA 200.7	1	02/13/2024 12:32	AXW	F1
Potassium, Total	1.5		mg/L	0.25	EPA 200.7	1	02/23/2024 13:27	AXW	D1
Sodium, Dissolved	8.5		mg/L	0.50	EPA 200.7	1	02/13/2024 12:32	AXW	F1
Sodium, Total	8.2		mg/L	0.25	EPA 200.7	1	02/23/2024 13:27	AXW	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	02/20/2024 18:00	ILY	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:00	ILY	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:00	ILY	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:00	ILY	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:00	ILY	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:00	ILY	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:00	ILY	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:00	ILY	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:00	ILY	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:00	ILY	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:00	ILY	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:00	ILY	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:00	ILY	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:00	ILY	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:00	ILY	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 18:00	ILY	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	86.1%	70 – 130	02/20/2024 18:00	

WET CHEMISTRY

Results

Client Sample ID	3052 River Road, Conestoga, PA	Collected	02/09/2024 10:03
Lab Sample ID	3345049001	Lab Receipt	02/09/2024 16:40

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	9		mg/L	5	SM2320B-2011	1	02/21/2024 15:26	KMV	A
Alkalinity, Total	9	1	mg/L	5	SM2320B-2011	1	02/21/2024 15:26	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	02/15/2024 15:28	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	02/14/2024 14:53	KMS	C
Chloride	19.1		mg/L	2.0	EPA 300.0	2	02/10/2024 18:51	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	02/10/2024 18:51	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	02/22/2024 16:32	PAG	K
Nitrate-N	17.5		mg/L	1.0	EPA 300.0	2	02/10/2024 18:51	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	02/10/2024 18:51	GMM	A
pH	6.52	2	pH_Units		S4500HB-11	1	02/21/2024 15:26	KMV	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	02/21/2024 18:25	AKH	J
Specific Conductance	238		umhos/cm	5	SM2510B-2011	1	02/22/2024 17:45	BLP	A
Sulfate	3.0		mg/L	2.0	EPA 300.0	2	02/10/2024 18:51	GMM	A
Total Dissolved Solids	154		mg/L	25	SM2540C-15	1	02/15/2024 15:30	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	02/13/2024 22:25	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	02/10/2024 07:04	NPF	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3345049001	3052 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		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
3345049001	3052 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1141973
		EPA ACID	1137019	02/13/2024 10:45	AXW	EPA 200.7	1137020
		EPA TRMD	1137300	02/13/2024 21:57	ANN	EPA 200.7	1144401
		N/A	N/A	N/A		EPA 524.2	1141870
		N/A	N/A	N/A		EPA 300.0	1135704
		N/A	N/A	N/A		EPA 410.4	1138068
		SW846 9066	1140403	02/21/2024 09:02	AKH	EPA 420.4	1142717
		N/A	N/A	N/A		S4500HB-11	1142742
		N/A	N/A	N/A		SM 4500-NH3G	1138121
		N/A	N/A	N/A		SM2130B-2011	1135700
		N/A	N/A	N/A		SM2320B-2011	1142742
		N/A	N/A	N/A		SM2510B-2011	1143406
		N/A	N/A	N/A		SM2540C-15	1138422
		N/A	N/A	N/A		SM5310B-14	1137115
		N/A	N/A	N/A		SW846 9020B	1143312

ALS Environmental

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

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

COC ALS

3345049

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	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	EPA 524.2 - Form 52	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3
					Enter Number of Containers Per Sample or Field Results Below.									
1 3052RIVERRD	02/09/24	1003	G	DW	2	1	2	3	X	1	2	2	1	1
2. Trip Blank	02/09/24	1640	G	DI				2						
3														
4														
5														
6														
7														
8														
9														
10														

Cooler Temp: 3 Therm ID: _____

No. of Coolers: _____

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

Temp By: DAG | WO Temp (°C): 3 | Therm ID: 571

Receipt Info Completed By:	DAG
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 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

Couri

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	2924	1640	2 [signature]	2924	1640
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

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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

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

Project 1ST QTR 2024-3056 RIVER RD
Workorder 3345047
Report ID 304127 on 2/29/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Feb 09, 2024.

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

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

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

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3345047001	3056RIVERRD	Water	02/09/2024 10:22	02/09/2024 16:40	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, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
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MDL	Method Detection Limit
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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	02/09/2024 10:22
Lab Sample ID	3345047001	Lab Receipt	02/09/2024 16:40

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.48	pH_Units		Field	#
Specific Conductance, Field	305	umhos/cm	1	Field	#
Temperature	13.35	Deg. C		Field	#
METALS					
Calcium, Dissolved	14.3	mg/L	0.10	EPA 200.7	#
Calcium, Total	12.7	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	12.5	mg/L	0.10	EPA 200.7	#
Magnesium, Total	11.9	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.078	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.075	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.3	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.2	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	8.6	mg/L	0.50	EPA 200.7	#
Sodium, Total	8.5	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	#
Chloride	23.3	mg/L	2.0	EPA 300.0	#
Nitrate-N	16.0	mg/L	1.0	EPA 300.0	#
pH	6.74	pH_Units		S4500HB-11	#
Specific Conductance	241	umhos/cm	5	SM2510B-2011	#
Total Dissolved Solids	143	mg/L	25	SM2540C-15	#
Turbidity	0.35	NTU	0.30	SM2130B-2011	#

Results

Client Sample ID	3056RIVERRD	Collected	02/09/2024 10:22
Lab Sample ID	3345047001	Lab Receipt	02/09/2024 16:40

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.48		pH_Units		Field	1	02/09/2024 10:22	BGS	P
Specific Conductance, Field	305		umhos/cm	1	Field	1	02/09/2024 10:22	BGS	P
Temperature	13.35		Deg. C		Field	1	02/09/2024 10:22	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	14.3		mg/L	0.10	EPA 200.7	1	02/13/2024 12:30	AXW	F1
Calcium, Total	12.7		mg/L	0.050	EPA 200.7	1	02/23/2024 13:23	AXW	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	02/13/2024 12:30	AXW	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	02/23/2024 13:23	AXW	D1
Magnesium, Dissolved	12.5		mg/L	0.10	EPA 200.7	1	02/13/2024 12:30	AXW	F1
Magnesium, Total	11.9		mg/L	0.050	EPA 200.7	1	02/23/2024 13:23	AXW	D1
Manganese, Dissolved	0.078		mg/L	0.0050	EPA 200.7	1	02/13/2024 12:30	AXW	F1
Manganese, Total	0.075		mg/L	0.0025	EPA 200.7	1	02/23/2024 13:23	AXW	D1
Potassium, Dissolved	2.3		mg/L	0.50	EPA 200.7	1	02/13/2024 12:30	AXW	F1
Potassium, Total	2.2		mg/L	0.25	EPA 200.7	1	02/23/2024 13:23	AXW	D1
Sodium, Dissolved	8.6		mg/L	0.50	EPA 200.7	1	02/13/2024 12:30	AXW	F1
Sodium, Total	8.5		mg/L	0.25	EPA 200.7	1	02/23/2024 13:23	AXW	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	02/20/2024 17:34	ILY	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:34	ILY	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:34	ILY	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:34	ILY	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:34	ILY	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:34	ILY	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:34	ILY	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:34	ILY	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:34	ILY	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:34	ILY	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:34	ILY	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:34	ILY	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:34	ILY	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:34	ILY	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:34	ILY	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:34	ILY	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	85.4%	70 – 130	02/20/2024 17:34	

WET CHEMISTRY

Results

Client Sample ID	3056RIVERRD	Collected	02/09/2024 10:22
Lab Sample ID	3345047001	Lab Receipt	02/09/2024 16:40

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	13		mg/L	5	SM2320B-2011	1	02/21/2024 15:14	KMV	A
Alkalinity, Total	13	1	mg/L	5	SM2320B-2011	1	02/21/2024 15:14	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	02/15/2024 22:01	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	02/14/2024 14:53	KMS	C
Chloride	23.3		mg/L	2.0	EPA 300.0	2	02/10/2024 18:41	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	02/10/2024 18:41	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	02/22/2024 16:32	PAG	K
Nitrate-N	16.0		mg/L	1.0	EPA 300.0	2	02/10/2024 18:41	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	02/10/2024 18:41	GMM	A
pH	6.74	2	pH_Units		S4500HB-11	1	02/21/2024 15:14	KMV	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	02/21/2024 18:21	AKH	J
Specific Conductance	241		umhos/cm	5	SM2510B-2011	1	02/22/2024 17:45	BLP	A
Sulfate	ND	ND	mg/L	2.0	EPA 300.0	2	02/10/2024 18:41	GMM	A
Total Dissolved Solids	143		mg/L	25	SM2540C-15	1	02/15/2024 15:30	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	02/13/2024 22:25	PAG	H
Turbidity	0.35		NTU	0.30	SM2130B-2011	1	02/10/2024 07:04	NPF	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3345047001	3056RIVERRD	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		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
3345047001	3056RIVERRD	N/A	N/A	N/A		Field	1141973
		EPA ACID	1137019	02/13/2024 10:45	AXW	EPA 200.7	1137020
		EPA TRMD	1137300	02/13/2024 21:57	ANN	EPA 200.7	1144401
		N/A	N/A	N/A		EPA 524.2	1141870
		N/A	N/A	N/A		EPA 300.0	1135704
		N/A	N/A	N/A		EPA 410.4	1138068
		SW846 9066	1140403	02/21/2024 09:02	AKH	EPA 420.4	1142717
		N/A	N/A	N/A		S4500HB-11	1142742
		N/A	N/A	N/A		SM 4500-NH3G	1138121
		N/A	N/A	N/A		SM2130B-2011	1135700
		N/A	N/A	N/A		SM2320B-2011	1142742
		N/A	N/A	N/A		SM2510B-2011	1143406
		N/A	N/A	N/A		SM2540C-15	1138422
		N/A	N/A	N/A		SM5310B-14	1137115
		N/A	N/A	N/A		SW846 9020B	1143312

ALS Environmental

34 Dogwood Lane • Middletown, PA 17057 • Phone: 717-944-5541 • Fax: 717-944-1430 • www.alsglobal.com

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

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3345047

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.: _____

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	Container Type	Container Size	Preservative	TOC	O-OH	TOX	EPA 524.2 - Form 52	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3
					AG	AN	AN	CG	----	PL	PL	PL	PL				
					40 ml	125 ml	250 ml	40 ml	----	250 ml	125 ml	125 ml	500 ml	500 ml			
					HCl	H2SO4	H2SO4	ASC/HCl	----	H2SO4	HNO3	HNO3	None	None			
					ANALYSES/METHOD REQUESTED												
					Enter Number of Containers Per Sample or Field Results Below.												
1 3056RIVERRD	02/09/24	1022	G	DW	2	1	2	3	X	1	2	2	1	1			
2. Trip Blank	02/09/24	1640	G	DI				2									
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Cooler Temp: 3 Therm ID: _____

No. of Coolers: _____

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

COC/Labels Complete and Accurate?

Courier/

Temp By: DAG | WO Temp (°C): 3 | Therm ID: 57

Receipt Info Completed By: DAG	
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 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 [signature] BY AWS	2-9-24	1640	2 [signature]	2/9/24	1640
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

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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

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

Project 1ST QTR 2024-3060 RIVER RD
Workorder 3345045
Report ID 304111 on 2/29/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Feb 09, 2024.

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

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

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

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

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

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3345045001	3060RIVERRD	Water	02/09/2024 11:29	02/09/2024 16:40	BGS	Analytical Laboratory Service

Reference

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  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
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- 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.
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MDL	Method Detection Limit
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RDL	Practical Quantitation Limit for this Project
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LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
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RPD	Relative Percent Difference
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LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
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(S)	Surrogate Compound
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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	3060RIVERRD	Collected	02/09/2024 11:29
Lab Sample ID	3345045001	Lab Receipt	02/09/2024 16:40

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.27	pH_Units		Field	#
Specific Conductance, Field	364	umhos/cm	1	Field	#
Temperature	13.57	Deg. C		Field	#
METALS					
Calcium, Dissolved	11.8	mg/L	0.10	EPA 200.7	#
Calcium, Total	10.3	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	11.7	mg/L	0.10	EPA 200.7	#
Magnesium, Total	10.2	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.10	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.10	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	2.6	mg/L	0.50	EPA 200.7	#
Potassium, Total	2.6	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	8.4	mg/L	0.50	EPA 200.7	#
Sodium, Total	8.2	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	5	mg/L	5	SM2320B-2011	#
Alkalinity, Total	5	mg/L	5	SM2320B-2011	#
Chloride	16.5	mg/L	2.0	EPA 300.0	#
Nitrate-N	15.8	mg/L	1.0	EPA 300.0	#
pH	6.21	pH_Units		S4500HB-11	#
Specific Conductance	227	umhos/cm	5	SM2510B-2011	#
Sulfate	11.4	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	124	mg/L	25	SM2540C-15	#

Results

Client Sample ID	3060RIVERRD	Collected	02/09/2024 11:29
Lab Sample ID	3345045001	Lab Receipt	02/09/2024 16:40

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.27		pH_Units		Field	1	02/09/2024 11:29	BGS	P
Specific Conductance, Field	364		umhos/cm	1	Field	1	02/09/2024 11:29	BGS	P
Temperature	13.57		Deg. C		Field	1	02/09/2024 11:29	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	11.8		mg/L	0.10	EPA 200.7	1	02/13/2024 12:33	AXW	F1
Calcium, Total	10.3	3	mg/L	0.050	EPA 200.7	1	02/23/2024 13:04	AXW	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	02/13/2024 12:33	AXW	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	02/23/2024 13:04	AXW	D1
Magnesium, Dissolved	11.7		mg/L	0.10	EPA 200.7	1	02/13/2024 12:33	AXW	F1
Magnesium, Total	10.2		mg/L	0.050	EPA 200.7	1	02/23/2024 13:04	AXW	D1
Manganese, Dissolved	0.10		mg/L	0.0050	EPA 200.7	1	02/13/2024 12:33	AXW	F1
Manganese, Total	0.10		mg/L	0.0025	EPA 200.7	1	02/23/2024 13:04	AXW	D1
Potassium, Dissolved	2.6		mg/L	0.50	EPA 200.7	1	02/13/2024 12:33	AXW	F1
Potassium, Total	2.6		mg/L	0.25	EPA 200.7	1	02/23/2024 13:04	AXW	D1
Sodium, Dissolved	8.4		mg/L	0.50	EPA 200.7	1	02/13/2024 12:33	AXW	F1
Sodium, Total	8.2		mg/L	0.25	EPA 200.7	1	02/23/2024 13:04	AXW	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	02/20/2024 17:08	ILY	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:08	ILY	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:08	ILY	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:08	ILY	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:08	ILY	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:08	ILY	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:08	ILY	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:08	ILY	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:08	ILY	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:08	ILY	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:08	ILY	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:08	ILY	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:08	ILY	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:08	ILY	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:08	ILY	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 17:08	ILY	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	89.2%	70 – 130	02/20/2024 17:08	

WET CHEMISTRY

Results

Client Sample ID	3060RIVERRD	Collected	02/09/2024 11:29
Lab Sample ID	3345045001	Lab Receipt	02/09/2024 16:40

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	5		mg/L	5	SM2320B-2011	1	02/21/2024 14:50	KMV	A
Alkalinity, Total	5	1	mg/L	5	SM2320B-2011	1	02/21/2024 14:50	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	02/15/2024 22:37	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	02/14/2024 14:53	KMS	C
Chloride	16.5		mg/L	2.0	EPA 300.0	2	02/10/2024 18:30	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	02/10/2024 18:30	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	02/22/2024 16:32	PAG	K
Nitrate-N	15.8		mg/L	1.0	EPA 300.0	2	02/10/2024 18:30	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	02/10/2024 18:30	GMM	A
pH	6.21	2	pH_Units		S4500HB-11	1	02/21/2024 14:50	KMV	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	02/21/2024 18:17	AKH	J
Specific Conductance	227		umhos/cm	5	SM2510B-2011	1	02/22/2024 17:45	BLP	A
Sulfate	11.4		mg/L	2.0	EPA 300.0	2	02/10/2024 18:30	GMM	A
Total Dissolved Solids	124		mg/L	25	SM2540C-15	1	02/15/2024 15:30	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	02/13/2024 22:25	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	02/10/2024 07:04	NPF	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3345045001	3060RIVERRD	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		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
3345045001	3060RIVERRD	N/A	N/A	N/A		Field	1141973
		EPA TRMD	1137300	02/13/2024 21:57	ANN	EPA 200.7	1144401
		EPA ACID	1137019	02/13/2024 10:45	AXW	EPA 200.7	1137020
		N/A	N/A	N/A		EPA 524.2	1141870
		N/A	N/A	N/A		EPA 300.0	1135704
		N/A	N/A	N/A		EPA 410.4	1138068
		SW846 9066	1140403	02/21/2024 09:02	AKH	EPA 420.4	1142717
		N/A	N/A	N/A		S4500HB-11	1142742
		N/A	N/A	N/A		SM 4500-NH3G	1138121
		N/A	N/A	N/A		SM2130B-2011	1135700
		N/A	N/A	N/A		SM2320B-2011	1142742
		N/A	N/A	N/A		SM2510B-2011	1143406
		N/A	N/A	N/A		SM2540C-15	1138422
		N/A	N/A	N/A		SM5310B-14	1137115
		N/A	N/A	N/A		SW846 9020B	1143312

ALS Environmental

34 Dogwood Lane • Middletown, PA 17057 • Phone: 717-944-5541 • Fax: 717-944-1430 • www.alsglobal.com

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

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3345045

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.: _____

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	Container Type	Container Size	Preservative	TOC	O-OH	TOX	EPA 524.2 - Form 52	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3
					AG	AN	AN	CG	----	PL	PL	PL	PL				
					40 ml	125 ml	250 ml	40 ml	----	250 ml	125 ml	125 ml	500 ml	500 ml			
					HCl	H2SO4	H2SO4	ASC/HCl	----	H2SO4	HNO3	HNO3	None	None			
					ANALYSES/METHOD REQUESTED												
					Enter Number of Containers Per Sample or Field Results Below.												
1 3060RIVERRD	02/09/24	1129	G	DW	2	1	2	3	X	1	2	2	1	1			
2. Trip Blank	02/09/24	1640	G	DI				2									
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 [illegible] ALS	2-9-24	1640	2	2/9/24	1640
3			4		
5			6		
7			8		
9			10		

(y Receiving Lab)

Cooler Temp: 5 Therm ID:

No. of Coolers: _____

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

Temp By: DAG | WO Temp (°C): 5 | Therm ID: 571

Receipt Info Completed By: DAG

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 Trip Blank	Y	N	NA
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: _____

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

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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

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

Project 1ST QTR 2024-3076 RIVER RD
Workorder 3345043
Report ID 304112 on 2/29/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Feb 09, 2024.

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

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

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

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3345043001	3076 River Road, Conestoga, PA	Water	02/09/2024 11:46	02/09/2024 16:40	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, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The QC sample type MS for method EPA 524.2 was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 63.2 and the control limits were 70 to 130.
2	The QC sample type MSD for method EPA 524.2 was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 61.6 and the control limits were 70 to 130.
3	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
4	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.

Detected Results Summary

Client Sample ID	3076 River Road, Conestoga, PA	Collected	02/09/2024 11:46
Lab Sample ID	3345043001	Lab Receipt	02/09/2024 16:40

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.18	pH_Units		Field	#
Specific Conductance, Field	264	umhos/cm	1	Field	#
Temperature	14.04	Deg. C		Field	#
METALS					
Calcium, Dissolved	14.5	mg/L	0.10	EPA 200.7	#
Calcium, Total	12.8	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	8.6	mg/L	0.10	EPA 200.7	#
Magnesium, Total	7.5	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.15	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.14	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	3.3	mg/L	0.50	EPA 200.7	#
Potassium, Total	3.4	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	20.7	mg/L	0.50	EPA 200.7	#
Sodium, Total	20.2	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	#
Chloride	43.1	mg/L	2.0	EPA 300.0	#
Nitrate-N	10.0	mg/L	1.0	EPA 300.0	#
pH	6.60	pH_Units		S4500HB-11	#
Specific Conductance	276	umhos/cm	5	SM2510B-2011	#
Sulfate	13.2	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	158	mg/L	25	SM2540C-15	#

Results

Client Sample ID	3076 River Road, Conestoga, PA	Collected	02/09/2024 11:46
Lab Sample ID	3345043001	Lab Receipt	02/09/2024 16:40

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.18		pH_Units		Field	1	02/09/2024 11:46	BGS	P
Specific Conductance, Field	264		umhos/cm	1	Field	1	02/09/2024 11:46	BGS	P
Temperature	14.04		Deg. C		Field	1	02/09/2024 11:46	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	14.5		mg/L	0.10	EPA 200.7	1	02/13/2024 12:34	AXW	F1
Calcium, Total	12.8		mg/L	0.050	EPA 200.7	1	02/23/2024 13:03	AXW	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	02/13/2024 12:34	AXW	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	02/23/2024 13:03	AXW	D1
Magnesium, Dissolved	8.6		mg/L	0.10	EPA 200.7	1	02/13/2024 12:34	AXW	F1
Magnesium, Total	7.5		mg/L	0.050	EPA 200.7	1	02/23/2024 13:03	AXW	D1
Manganese, Dissolved	0.15		mg/L	0.0050	EPA 200.7	1	02/13/2024 12:34	AXW	F1
Manganese, Total	0.14		mg/L	0.0025	EPA 200.7	1	02/23/2024 13:03	AXW	D1
Potassium, Dissolved	3.3		mg/L	0.50	EPA 200.7	1	02/13/2024 12:34	AXW	F1
Potassium, Total	3.4		mg/L	0.25	EPA 200.7	1	02/23/2024 13:03	AXW	D1
Sodium, Dissolved	20.7		mg/L	0.50	EPA 200.7	1	02/13/2024 12:34	AXW	F1
Sodium, Total	20.2		mg/L	0.25	EPA 200.7	1	02/23/2024 13:03	AXW	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	02/20/2024 15:25	ILY	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 15:25	ILY	M
1,1-Dichloroethene	ND	ND,1,2	ug/L	0.50	EPA 524.2	1	02/20/2024 15:25	ILY	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 15:25	ILY	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 15:25	ILY	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 15:25	ILY	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 15:25	ILY	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 15:25	ILY	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 15:25	ILY	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 15:25	ILY	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 15:25	ILY	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 15:25	ILY	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 15:25	ILY	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 15:25	ILY	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 15:25	ILY	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 15:25	ILY	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	86.9%	70 – 130	02/20/2024 15:25	

WET CHEMISTRY

Results

Client Sample ID	3076 River Road, Conestoga, PA	Collected	02/09/2024 11:46
Lab Sample ID	3345043001	Lab Receipt	02/09/2024 16:40

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	9		mg/L	5	SM2320B-2011	1	02/21/2024 14:39	KMV	A
Alkalinity, Total	9	3	mg/L	5	SM2320B-2011	1	02/21/2024 14:39	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	02/15/2024 16:13	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	02/14/2024 14:53	KMS	C
Chloride	43.1		mg/L	2.0	EPA 300.0	2	02/10/2024 18:20	GMM	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	02/10/2024 18:20	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	02/22/2024 16:15	PAG	K
Nitrate-N	10.0		mg/L	1.0	EPA 300.0	2	02/10/2024 18:20	GMM	A
Nitrite-N	ND	ND	mg/L	1.0	EPA 300.0	2	02/10/2024 18:20	GMM	A
pH	6.60	4	pH_Units		S4500HB-11	1	02/21/2024 14:39	KMV	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	02/21/2024 17:50	AKH	J
Specific Conductance	276		umhos/cm	5	SM2510B-2011	1	02/22/2024 17:45	BLP	A
Sulfate	13.2		mg/L	2.0	EPA 300.0	2	02/10/2024 18:20	GMM	A
Total Dissolved Solids	158		mg/L	25	SM2540C-15	1	02/15/2024 15:30	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	02/13/2024 22:25	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	02/10/2024 07:04	NPF	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3345043001	3076 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		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
3345043001	3076 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1141973
		EPA ACID	1137019	02/13/2024 10:45	AXW	EPA 200.7	1137020
		EPA TRMD	1137300	02/13/2024 21:57	ANN	EPA 200.7	1144401
		N/A	N/A	N/A		EPA 524.2	1141870
		N/A	N/A	N/A		EPA 300.0	1135704
		N/A	N/A	N/A		EPA 410.4	1138068
		SW846 9066	1140403	02/21/2024 09:02	AKH	EPA 420.4	1142717
		N/A	N/A	N/A		S4500HB-11	1142742
		N/A	N/A	N/A		SM 4500-NH3G	1138121
		N/A	N/A	N/A		SM2130B-2011	1135700
		N/A	N/A	N/A		SM2320B-2011	1142742
		N/A	N/A	N/A		SM2510B-2011	1143406
		N/A	N/A	N/A		SM2540C-15	1138422
		N/A	N/A	N/A		SM5310B-14	1137115
		N/A	N/A	N/A		SW846 9020B	1143310

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3345043

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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.: _____

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	EPA 524.2 - Form 52	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3
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
					Enter Number of Containers Per Sample or Field Results Below.									
1 3076RIVERRD	02/09/24	1146	G	DW	2	1	2	3	X	1	1	1	1	1
2. Trip Blank	02/09/24	1640	G	DI				2						
3														
4														
5														
6														
7														
8														
9														
10														

Co

Cooler Temp: 6 Therm ID: _____

No. of Coolers: _____ Y N Initial

Custody Seals Present? [ ] [ ]

(if present) Seals Intact? [ ] [ ]

Temp By: DAG WO Temp (°C) 6 Therm ID 571

Receipt Info Completed By: DAG

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 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 [signature] ALS	2-9-24	1640	2 [signature]	2/9/24	1640
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

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Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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

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

Project 1ST QTR 2024-3079 RIVER RD
Workorder 3345038
Report ID 304124 on 2/29/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Feb 09, 2024.

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

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

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3345038001	3079RIVERRD	Water	02/09/2024 13:45	02/09/2024 16:40	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, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

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

Detected Results Summary

Client Sample ID	3079RIVERRD	Collected	02/09/2024 13:45
Lab Sample ID	3345038001	Lab Receipt	02/09/2024 16:40

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	6.86	pH_Units		Field	#
Specific Conductance, Field	789	umhos/cm	1	Field	#
Temperature	15.24	Deg. C		Field	#
METALS					
Calcium, Dissolved	10.7	mg/L	0.10	EPA 200.7	#
Calcium, Total	9.5	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	5.6	mg/L	0.10	EPA 200.7	#
Magnesium, Total	5.0	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.024	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.022	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	1.7	mg/L	0.50	EPA 200.7	#
Potassium, Total	1.9	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	12.1	mg/L	0.50	EPA 200.7	#
Sodium, Total	11.8	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	23	mg/L	5	SM2320B-2011	#
Alkalinity, Total	23	mg/L	5	SM2320B-2011	#
Chloride	28.7	mg/L	5.0	EPA 300.0	#
pH	6.63	pH_Units		S4500HB-11	#
Specific Conductance	172	umhos/cm	5	SM2510B-2011	#
Sulfate	8.6	mg/L	5.0	EPA 300.0	#
Total Dissolved Solids	92	mg/L	25	SM2540C-15	#

Results

Client Sample ID	3079RIVERRD	Collected	02/09/2024 13:45
Lab Sample ID	3345038001	Lab Receipt	02/09/2024 16:40

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	6.86		pH_Units		Field	1	02/09/2024 13:45	BGS	P
Specific Conductance, Field	789		umhos/cm	1	Field	1	02/09/2024 13:45	BGS	P
Temperature	15.24		Deg. C		Field	1	02/09/2024 13:45	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	10.7		mg/L	0.10	EPA 200.7	1	02/13/2024 12:19	AXW	F1
Calcium, Total	9.5		mg/L	0.050	EPA 200.7	1	02/23/2024 13:02	AXW	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	02/13/2024 12:19	AXW	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	02/23/2024 13:02	AXW	D1
Magnesium, Dissolved	5.6		mg/L	0.10	EPA 200.7	1	02/13/2024 12:19	AXW	F1
Magnesium, Total	5.0		mg/L	0.050	EPA 200.7	1	02/23/2024 13:02	AXW	D1
Manganese, Dissolved	0.024		mg/L	0.0050	EPA 200.7	1	02/13/2024 12:19	AXW	F1
Manganese, Total	0.022		mg/L	0.0025	EPA 200.7	1	02/23/2024 13:02	AXW	D1
Potassium, Dissolved	1.7		mg/L	0.50	EPA 200.7	1	02/13/2024 12:19	AXW	F1
Potassium, Total	1.9		mg/L	0.25	EPA 200.7	1	02/23/2024 13:02	AXW	D1
Sodium, Dissolved	12.1		mg/L	0.50	EPA 200.7	1	02/13/2024 12:19	AXW	F1
Sodium, Total	11.8		mg/L	0.25	EPA 200.7	1	02/23/2024 13:02	AXW	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	02/20/2024 14:59	ILY	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:59	ILY	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:59	ILY	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:59	ILY	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:59	ILY	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:59	ILY	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:59	ILY	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:59	ILY	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:59	ILY	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:59	ILY	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:59	ILY	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:59	ILY	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:59	ILY	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:59	ILY	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:59	ILY	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:59	ILY	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	82.5%	70 – 130	02/20/2024 14:59	

WET CHEMISTRY

Results

Client Sample ID	3079RIVERRD	Collected	02/09/2024 13:45
Lab Sample ID	3345038001	Lab Receipt	02/09/2024 16:40

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	23		mg/L	5	SM2320B-2011	1	02/21/2024 14:27	KMV	A
Alkalinity, Total	23	1	mg/L	5	SM2320B-2011	1	02/21/2024 14:27	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	02/15/2024 17:09	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	02/14/2024 14:53	KMS	C
Chloride	28.7		mg/L	5.0	EPA 300.0	5	02/10/2024 17:17	GMM	A
Fluoride	ND	ND	mg/L	0.50	EPA 300.0	5	02/10/2024 17:17	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	02/22/2024 16:15	PAG	K
Nitrate-N	ND	ND	mg/L	2.5	EPA 300.0	5	02/10/2024 17:17	GMM	A
Nitrite-N	ND	ND	mg/L	2.5	EPA 300.0	5	02/10/2024 17:17	GMM	A
pH	6.63	2	pH_Units		S4500HB-11	1	02/21/2024 14:27	KMV	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	02/21/2024 17:46	AKH	J
Specific Conductance	172		umhos/cm	5	SM2510B-2011	1	02/22/2024 17:45	BLP	A
Sulfate	8.6		mg/L	5.0	EPA 300.0	5	02/10/2024 17:17	GMM	A
Total Dissolved Solids	92		mg/L	25	SM2540C-15	1	02/15/2024 17:00	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	02/13/2024 22:25	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	02/10/2024 14:10	NPF	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3345038001	3079RIVERRD	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		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
3345038001	3079RIVERRD	N/A	N/A	N/A		Field	1141973
		EPA ACID	1137019	02/13/2024 10:45	AXW	EPA 200.7	1137020
		EPA TRMD	1137300	02/13/2024 21:57	ANN	EPA 200.7	1144401
		N/A	N/A	N/A		EPA 524.2	1141870
		N/A	N/A	N/A		EPA 300.0	1135704
		N/A	N/A	N/A		EPA 410.4	1138068
		SW846 9066	1140403	02/21/2024 09:02	AKH	EPA 420.4	1142717
		N/A	N/A	N/A		S4500HB-11	1142742
		N/A	N/A	N/A		SM 4500-NH3G	1138121
		N/A	N/A	N/A		SM2130B-2011	1135722
		N/A	N/A	N/A		SM2320B-2011	1142742
		N/A	N/A	N/A		SM2510B-2011	1143406
		N/A	N/A	N/A		SM2540C-15	1138424
		N/A	N/A	N/A		SM5310B-14	1137115
		N/A	N/A	N/A		SW846 9020B	1143310

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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3345038

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 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	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	EPA 524.2 - Form 52	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3
					Enter Number of Containers Per Sample or Field Results Below.									
1 3079RIVERRD	02/09/24	1345	G	DW	2	1	2	3	X	1	2	2	1	1
2. Trip Blank	02/09/24	1640	G	DI				2						
3														
4														
5														
6														
7														
8														
9														
10														

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

No. of Coolers: _____ Y N Initial

Custody Seals Present? [ ] [ ]

DAG 6 571

Receipt Info Completed By: DAG

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 Trip Blank	Y	N	NA
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 [signature] ALS	2-9-24	1640	2 [signature]	2/9/24	1640
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

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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

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

Project 1ST QTR 2024-3088 RIVER RD
Workorder 3345036
Report ID 304182 on 2/29/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Feb 09, 2024.

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

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

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3345036001	3088RIVERRD	Water	02/09/2024 12:05	02/09/2024 16:40	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, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

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

Detected Results Summary

Client Sample ID	3088RIVERRD	Collected	02/09/2024 12:05
Lab Sample ID	3345036001	Lab Receipt	02/09/2024 16:40

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.95	pH_Units		Field	#
Specific Conductance, Field	824	umhos/cm	1	Field	#
Temperature	13.59	Deg. C		Field	#
METALS					
Calcium, Dissolved	5.3	mg/L	0.10	EPA 200.7	#
Calcium, Total	5.0	mg/L	0.10	EPA 200.7	#
Magnesium, Dissolved	1.8	mg/L	0.10	EPA 200.7	#
Magnesium, Total	1.6	mg/L	0.10	EPA 200.7	#
Potassium, Dissolved	177	mg/L	0.50	EPA 200.7	#
Potassium, Total	167	mg/L	0.50	EPA 200.7	#
Sodium, Dissolved	163	mg/L	0.50	EPA 200.7	#
Sodium, Total	156	mg/L	0.50	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	146	mg/L	5	SM2320B-2011	#
Alkalinity, Total	146	mg/L	5	SM2320B-2011	#
Chloride	414	mg/L	5.0	EPA 300.0	#
Nitrate-N	8.1	mg/L	2.5	EPA 300.0	#
pH	8.04	pH_Units		S4500HB-11	#
Specific Conductance	1470	umhos/cm	5	SM2510B-2011	#
Total Dissolved Solids	780	mg/L	25	SM2540C-15	#

Results

Client Sample ID	3088RIVERRD	Collected	02/09/2024 12:05
Lab Sample ID	3345036001	Lab Receipt	02/09/2024 16:40

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.95		pH_Units		Field	1	02/09/2024 12:05	BGS	P
Specific Conductance, Field	824		umhos/cm	1	Field	1	02/09/2024 12:05	BGS	P
Temperature	13.59		Deg. C		Field	1	02/09/2024 12:05	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	5.3		mg/L	0.10	EPA 200.7	1	02/13/2024 12:23	AXW	F1
Calcium, Total	5.0		mg/L	0.10	EPA 200.7	2	02/24/2024 15:49	AXW	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	02/13/2024 12:23	AXW	F1
Iron, Total	ND	ND	mg/L	0.060	EPA 200.7	2	02/24/2024 15:49	AXW	D1
Magnesium, Dissolved	1.8		mg/L	0.10	EPA 200.7	1	02/13/2024 12:23	AXW	F1
Magnesium, Total	1.6		mg/L	0.10	EPA 200.7	2	02/24/2024 15:49	AXW	D1
Manganese, Dissolved	ND	ND	mg/L	0.0050	EPA 200.7	1	02/13/2024 12:23	AXW	F1
Manganese, Total	ND	ND	mg/L	0.0050	EPA 200.7	2	02/24/2024 15:49	AXW	D1
Potassium, Dissolved	177		mg/L	0.50	EPA 200.7	1	02/13/2024 12:23	AXW	F1
Potassium, Total	167		mg/L	0.50	EPA 200.7	2	02/24/2024 15:49	AXW	D1
Sodium, Dissolved	163		mg/L	0.50	EPA 200.7	1	02/13/2024 12:23	AXW	F1
Sodium, Total	156		mg/L	0.50	EPA 200.7	2	02/24/2024 15:49	AXW	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	02/20/2024 14:33	ILY	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:33	ILY	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:33	ILY	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:33	ILY	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:33	ILY	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:33	ILY	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:33	ILY	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:33	ILY	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:33	ILY	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:33	ILY	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:33	ILY	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:33	ILY	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:33	ILY	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:33	ILY	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:33	ILY	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:33	ILY	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	88.1%	70 – 130	02/20/2024 14:33	

WET CHEMISTRY

Results

Client Sample ID	3088RIVERRD	Collected	02/09/2024 12:05
Lab Sample ID	3345036001	Lab Receipt	02/09/2024 16:40

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	146		mg/L	5	SM2320B-2011	1	02/21/2024 14:14	KMV	A
Alkalinity, Total	146	1	mg/L	5	SM2320B-2011	1	02/21/2024 14:14	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	02/15/2024 17:07	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	02/14/2024 14:53	KMS	C
Chloride	414		mg/L	5.0	EPA 300.0	5	02/10/2024 17:07	GMM	A
Fluoride	ND	ND	mg/L	0.50	EPA 300.0	5	02/10/2024 17:07	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	02/22/2024 16:15	PAG	K
Nitrate-N	8.1		mg/L	2.5	EPA 300.0	5	02/10/2024 17:07	GMM	A
Nitrite-N	ND	ND	mg/L	2.5	EPA 300.0	5	02/10/2024 17:07	GMM	A
pH	8.04	2	pH_Units		S4500HB-11	1	02/21/2024 14:14	KMV	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	02/21/2024 17:43	AKH	J
Specific Conductance	1470		umhos/cm	5	SM2510B-2011	1	02/22/2024 17:45	BLP	A
Sulfate	ND	ND	mg/L	5.0	EPA 300.0	5	02/10/2024 17:07	GMM	A
Total Dissolved Solids	780		mg/L	25	SM2540C-15	1	02/15/2024 15:30	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	02/13/2024 22:25	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	02/10/2024 07:04	NPF	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3345036001	3088RIVERRD	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		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
3345036001	3088RIVERRD	N/A	N/A	N/A		Field	1141973
		EPA ACID	1137019	02/13/2024 10:45	AXW	EPA 200.7	1137020
		EPA TRMD	1137300	02/13/2024 21:57	ANN	EPA 200.7	1145999
		N/A	N/A	N/A		EPA 524.2	1141870
		N/A	N/A	N/A		EPA 300.0	1135704
		N/A	N/A	N/A		EPA 410.4	1138068
		SW846 9066	1140403	02/21/2024 09:02	AKH	EPA 420.4	1142717
		N/A	N/A	N/A		S4500HB-11	1142742
		N/A	N/A	N/A		SM 4500-NH3G	1138121
		N/A	N/A	N/A		SM2130B-2011	1135700
		N/A	N/A	N/A		SM2320B-2011	1142742
		N/A	N/A	N/A		SM2510B-2011	1143406
		N/A	N/A	N/A		SM2540C-15	1138422
		N/A	N/A	N/A		SM5310B-14	1137115
		N/A	N/A	N/A		SW846 9020B	1143310

ALS Environmental

34 Dogwood Lane • Middletown, PA 17057 • Phone: 717-944-5541 • Fax: 717-944-1430 • www.alsglobal.com

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3345036

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 - 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	PL	ed by Receiving Lab)
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	EPA 524.2 - Form 52	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3
					Enter Number of Containers Per Sample or Field Results Below.									
1 3088RIVER RD	02/09/24	1205	G	DW	2	1	2	3	X	1	2	2	1	1
2. Trip Blank	02/09/24	1640	G	DI				2						
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?			

CC DAG 5 571

Receipt Info Completed By: DAG

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 Trip Blank	Y	N	NA
NJ≤ 4 Days?			
Rad Screen (uCi)			
Courier/Tracking #:			

SDWA Compliance

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	2-9-24	1640	2 [signature]	2-9-24	1640
3			4		
5			6		
7			8		
9			10		

Data Deliverables: ☐Standard ☐CLP-like ☐USACE

Special Processing: USACE ☐ Navy ☐

State Samples Collected In: ☐NY ☐NJ ☒PA ☐NC

Reportable to PADEP? Yes ☐ PWSID # _____

Sample Disposal: Lab ☒ 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

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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

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

Project 1ST QTR-2024 3100 RIVER RD
Workorder 3345035
Report ID 303743 on 2/27/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Feb 09, 2024.

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

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3345035001	3100 River Road, Conestoga, PA	Water	02/09/2024 12:23	02/09/2024 16:40	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, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

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

Detected Results Summary

Client Sample ID	3100 River Road, Conestoga, PA	Collected	02/09/2024 12:23
Lab Sample ID	3345035001	Lab Receipt	02/09/2024 16:40

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.02	pH_Units		Field	#
Specific Conductance, Field	223	umhos/cm	1	Field	#
Temperature	13.47	Deg. C		Field	#
METALS					
Calcium, Dissolved	13.8	mg/L	0.10	EPA 200.7	#
Calcium, Total	13.5	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	6.6	mg/L	0.10	EPA 200.7	#
Magnesium, Total	6.4	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.0086	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.0074	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	1.4	mg/L	0.50	EPA 200.7	#
Potassium, Total	1.4	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	15.5	mg/L	0.50	EPA 200.7	#
Sodium, Total	14.7	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	#
Chloride	40.8	mg/L	5.0	EPA 300.0	#
Nitrate-N	3.0	mg/L	2.5	EPA 300.0	#
pH	6.98	pH_Units		S4500HB-11	#
Specific Conductance	218	umhos/cm	5	SM2510B-2011	#
Sulfate	7.1	mg/L	5.0	EPA 300.0	#
Total Dissolved Solids	127	mg/L	25	SM2540C-15	#

Results

Client Sample ID	3100 River Road, Conestoga, PA	Collected	02/09/2024 12:23
Lab Sample ID	3345035001	Lab Receipt	02/09/2024 16:40

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.02		pH_Units		Field	1	02/09/2024 12:23	BGS	P
Specific Conductance, Field	223		umhos/cm	1	Field	1	02/09/2024 12:23	BGS	P
Temperature	13.47		Deg. C		Field	1	02/09/2024 12:23	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	13.8		mg/L	0.10	EPA 200.7	1	02/13/2024 12:16	AXW	F1
Calcium, Total	13.5		mg/L	0.050	EPA 200.7	1	02/26/2024 18:14	AXW	D
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	02/13/2024 12:16	AXW	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	02/26/2024 18:14	AXW	D
Magnesium, Dissolved	6.6		mg/L	0.10	EPA 200.7	1	02/13/2024 12:16	AXW	F1
Magnesium, Total	6.4		mg/L	0.050	EPA 200.7	1	02/26/2024 18:14	AXW	D
Manganese, Dissolved	0.0086		mg/L	0.0050	EPA 200.7	1	02/13/2024 12:16	AXW	F1
Manganese, Total	0.0074		mg/L	0.0025	EPA 200.7	1	02/26/2024 18:14	AXW	D
Potassium, Dissolved	1.4		mg/L	0.50	EPA 200.7	1	02/13/2024 12:16	AXW	F1
Potassium, Total	1.4		mg/L	0.25	EPA 200.7	1	02/26/2024 18:14	AXW	D
Sodium, Dissolved	15.5		mg/L	0.50	EPA 200.7	1	02/13/2024 12:16	AXW	F1
Sodium, Total	14.7		mg/L	0.25	EPA 200.7	1	02/26/2024 18:14	AXW	D

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	02/20/2024 14:07	ILY	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:07	ILY	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:07	ILY	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:07	ILY	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:07	ILY	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:07	ILY	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:07	ILY	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:07	ILY	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:07	ILY	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:07	ILY	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:07	ILY	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:07	ILY	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:07	ILY	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:07	ILY	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:07	ILY	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 14:07	ILY	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	86.4%	70 – 130	02/20/2024 14:07	

WET CHEMISTRY

Results

Client Sample ID	3100 River Road, Conestoga, PA	Collected	02/09/2024 12:23
Lab Sample ID	3345035001	Lab Receipt	02/09/2024 16:40

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	24		mg/L	5	SM2320B-2011	1	02/20/2024 10:12	KMV	A
Alkalinity, Total	24	1	mg/L	5	SM2320B-2011	1	02/20/2024 10:12	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	02/15/2024 17:13	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	02/14/2024 14:53	KMS	C
Chloride	40.8		mg/L	5.0	EPA 300.0	5	02/10/2024 16:56	GMM	A
Fluoride	ND	ND	mg/L	0.50	EPA 300.0	5	02/10/2024 16:56	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	02/22/2024 16:15	PAG	K
Nitrate-N	3.0		mg/L	2.5	EPA 300.0	5	02/10/2024 16:56	GMM	A
Nitrite-N	ND	ND	mg/L	2.5	EPA 300.0	5	02/10/2024 16:56	GMM	A
pH	6.98	2	pH_Units		S4500HB-11	1	02/20/2024 10:12	KMV	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	02/21/2024 17:39	AKH	J
Specific Conductance	218		umhos/cm	5	SM2510B-2011	1	02/21/2024 08:50	E1R	A
Sulfate	7.1		mg/L	5.0	EPA 300.0	5	02/10/2024 16:56	GMM	A
Total Dissolved Solids	127		mg/L	25	SM2540C-15	1	02/15/2024 15:30	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	02/13/2024 22:25	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	02/10/2024 07:04	NPF	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3345035001	3100 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		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
3345035001	3100 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1141973
		EPA TRMD	1137302	02/13/2024 21:57	ANN	EPA 200.7	1146903
		EPA ACID	1137019	02/13/2024 10:45	AXW	EPA 200.7	1137020
		N/A	N/A	N/A		EPA 524.2	1141870
		N/A	N/A	N/A		EPA 300.0	1135704
		N/A	N/A	N/A		EPA 410.4	1138068
		SW846 9066	1140403	02/21/2024 09:02	AKH	EPA 420.4	1142717
		N/A	N/A	N/A		S4500HB-11	1141532
		N/A	N/A	N/A		SM 4500-NH3G	1138121
		N/A	N/A	N/A		SM2130B-2011	1135700
		N/A	N/A	N/A		SM2320B-2011	1141532
		N/A	N/A	N/A		SM2510B-2011	1141974
		N/A	N/A	N/A		SM2540C-15	1138422
		N/A	N/A	N/A		SM5310B-14	1137115
		N/A	N/A	N/A		SW846 9020B	1143310

ALS Environmental

34 Dogwood Lane • Middletown, PA 17057 • Phone: 717-944-5541 • Fax: 717-944-1430 • www.alsglobal.com

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

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3345035

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 - 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.: _____

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

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	EPA 524.2 - Form 52	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3
					Enter Number of Containers Per Sample or Field Results Below.									
1 3100RIVERRD	02/09/24	1223	G	DW	2	1	2	2	X	1	2	2	1	1
2. Trip Blank	02/09/24	1640	G	DI				2						
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	2-9-24	1640	2 [signature]	2/9/24	1640
3			4		
5			6		
7			8		
9			10		

(Completed by Receiving Lab)

Cooler Temp: _____ Therm ID: _____

No. of Coolers: _____

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

Temp By: DAG | WO Temp (°C): 5 | Therm ID: 571

Receipt Info Completed By: DAG

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 Trip Blank	Y	N	NA
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: _____

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

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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

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

Project 1ST QTR 2024-3106 RIVER RD
Workorder 3345033
Report ID 303738 on 2/27/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Feb 09, 2024.

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

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3345033001	3106 River Road, Conestoga, PA	Water	02/09/2024 13:14	02/09/2024 16:40	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, including but not limited to the following EPA Method reference revisions:
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  EPA 300.0 Rev. 2.1-1993
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  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
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- 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.

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MDL	Method Detection Limit
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RDL	Practical Quantitation Limit for this Project
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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	02/09/2024 13:14
Lab Sample ID	3345033001	Lab Receipt	02/09/2024 16:40

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	7.08	pH_Units		Field	#
Specific Conductance, Field	391	umhos/cm	1	Field	#
Temperature	13.21	Deg. C		Field	#
METALS					
Calcium, Dissolved	17.9	mg/L	0.10	EPA 200.7	#
Calcium, Total	17.5	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	11.1	mg/L	0.10	EPA 200.7	#
Magnesium, Total	10.9	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	1.7	mg/L	0.50	EPA 200.7	#
Potassium, Total	1.7	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	33.2	mg/L	0.50	EPA 200.7	#
Sodium, Total	32.6	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	15	mg/L	5	SM2320B-2011	#
Alkalinity, Total	15	mg/L	5	SM2320B-2011	#
Chloride	81.1	mg/L	5.0	EPA 300.0	#
Nitrate-N	8.6	mg/L	2.5	EPA 300.0	#
pH	7.12	pH_Units		S4500HB-11	#
Specific Conductance	383	umhos/cm	5	SM2510B-2011	#
Sulfate	6.5	mg/L	5.0	EPA 300.0	#
Total Dissolved Solids	212	mg/L	25	SM2540C-15	#
Turbidity	0.30	NTU	0.30	SM2130B-2011	#

Results

Client Sample ID	3106 River Road, Conestoga, PA	Collected	02/09/2024 13:14
Lab Sample ID	3345033001	Lab Receipt	02/09/2024 16:40

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	7.08		pH_Units		Field	1	02/09/2024 13:14	BGS	P
Specific Conductance, Field	391		umhos/cm	1	Field	1	02/09/2024 13:14	BGS	P
Temperature	13.21		Deg. C		Field	1	02/09/2024 13:14	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	17.9		mg/L	0.10	EPA 200.7	1	02/13/2024 12:18	AXW	F1
Calcium, Total	17.5		mg/L	0.050	EPA 200.7	1	02/26/2024 18:13	AXW	D
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	02/13/2024 12:18	AXW	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	02/26/2024 18:13	AXW	D
Magnesium, Dissolved	11.1		mg/L	0.10	EPA 200.7	1	02/13/2024 12:18	AXW	F1
Magnesium, Total	10.9		mg/L	0.050	EPA 200.7	1	02/26/2024 18:13	AXW	D
Manganese, Dissolved	0.034		mg/L	0.0050	EPA 200.7	1	02/13/2024 12:18	AXW	F1
Manganese, Total	0.035		mg/L	0.0025	EPA 200.7	1	02/26/2024 18:13	AXW	D
Potassium, Dissolved	1.7		mg/L	0.50	EPA 200.7	1	02/13/2024 12:18	AXW	F1
Potassium, Total	1.7		mg/L	0.25	EPA 200.7	1	02/26/2024 18:13	AXW	D
Sodium, Dissolved	33.2		mg/L	0.50	EPA 200.7	1	02/13/2024 12:18	AXW	F1
Sodium, Total	32.6		mg/L	0.25	EPA 200.7	1	02/26/2024 18:13	AXW	D

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	02/20/2024 13:41	ILY	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:41	ILY	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:41	ILY	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:41	ILY	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:41	ILY	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:41	ILY	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:41	ILY	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:41	ILY	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:41	ILY	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:41	ILY	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:41	ILY	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:41	ILY	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:41	ILY	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:41	ILY	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:41	ILY	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:41	ILY	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	85.9%	70 – 130	02/20/2024 13:41	

WET CHEMISTRY

Results

Client Sample ID	3106 River Road, Conestoga, PA	Collected	02/09/2024 13:14
Lab Sample ID	3345033001	Lab Receipt	02/09/2024 16:40

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	15		mg/L	5	SM2320B-2011	1	02/20/2024 04:57	KMV	A
Alkalinity, Total	15	1	mg/L	5	SM2320B-2011	1	02/20/2024 04:57	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	02/15/2024 17:04	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	02/14/2024 14:53	KMS	C
Chloride	81.1		mg/L	5.0	EPA 300.0	5	02/10/2024 16:46	GMM	A
Fluoride	ND	ND	mg/L	0.50	EPA 300.0	5	02/10/2024 16:46	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	02/22/2024 16:15	PAG	K
Nitrate-N	8.6		mg/L	2.5	EPA 300.0	5	02/10/2024 16:46	GMM	A
Nitrite-N	ND	ND	mg/L	2.5	EPA 300.0	5	02/10/2024 16:46	GMM	A
pH	7.12	2	pH_Units		S4500HB-11	1	02/20/2024 04:57	KMV	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	02/21/2024 17:35	AKH	J
Specific Conductance	383		umhos/cm	5	SM2510B-2011	1	02/21/2024 08:50	E1R	A
Sulfate	6.5		mg/L	5.0	EPA 300.0	5	02/10/2024 16:46	GMM	A
Total Dissolved Solids	212		mg/L	25	SM2540C-15	1	02/15/2024 15:30	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	02/13/2024 22:25	PAG	H
Turbidity	0.30		NTU	0.30	SM2130B-2011	1	02/10/2024 07:04	NPF	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3345033001	3106 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA TRMD	
		EPA 200.7	EPA ACID	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		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
3345033001	3106 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1141973
		EPA TRMD	1137302	02/13/2024 21:57	ANN	EPA 200.7	1146903
		EPA ACID	1137019	02/13/2024 10:45	AXW	EPA 200.7	1137020
		N/A	N/A	N/A		EPA 524.2	1141870
		N/A	N/A	N/A		EPA 300.0	1135704
		N/A	N/A	N/A		EPA 410.4	1138068
		SW846 9066	1140403	02/21/2024 09:02	AKH	EPA 420.4	1142717
		N/A	N/A	N/A		S4500HB-11	1141532
		N/A	N/A	N/A		SM 4500-NH3G	1138121
		N/A	N/A	N/A		SM2130B-2011	1135700
		N/A	N/A	N/A		SM2320B-2011	1141532
		N/A	N/A	N/A		SM2510B-2011	1141974
		N/A	N/A	N/A		SM2540C-15	1138422
		N/A	N/A	N/A		SM5310B-14	1137115
		N/A	N/A	N/A		SW846 9020B	1143310

ALS Environmental
34 Dogwood Lane • Middletown, PA 17057 • Phone: 717-944-5541 • Fax: 717-944-1430 • www.alsglobal.com

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

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3345033

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 - 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.: _____

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	EPA 524.2 - Form 52	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, 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
ANALYSES/METHOD REQUESTED														
Enter Number of Containers Per Sample or Field Results Below.														
1 3106RIVERRD	02/09/24	1314	G	DW	2	1	2	3	X	1	2	2	1	1
2. Trip Blank	02/09/24	1640	G	DI				2						
3														
4														
5														
6														
7														
8														
9														
10														

(Lab Use Only)

Cooler Temp: 5 Therm ID: _____

No. of Coolers: _____

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

DAG 5 5Y

Receipt Info Completed By: DAG

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 Trip Blank	Y	N	NA
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 [illegible] AWS	2-9-24	1620	2 [signature]	2/9/24	1640
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

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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

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

Project 1ST QTR 2024-3125 RIVER RD
Workorder 3345031
Report ID 304113 on 2/29/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Feb 09, 2024.

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

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

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3345031001	3125 River Road, Conestoga, PA	Water	02/09/2024 13:33	02/09/2024 16:40	BGS	Analytical Laboratory Service
3345031002	Trip Blank	Water	02/09/2024 16:40	02/09/2024 16:40	BGS	Analytical Laboratory Service
3345031003	Field Blank	Water	02/09/2024 15:32	02/09/2024 16:40	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, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

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

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.
3	The concentration of this analyte was greater than 4 times the concentration of the spike added to the matrix spike. According to protocol, the calculation for percent recovery of the matrix spike is not valid.

Detected Results Summary

Client Sample ID	3125 River Road, Conestoga, PA	Collected	02/09/2024 13:33
Lab Sample ID	3345031001	Lab Receipt	02/09/2024 16:40

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
pH, Field (SM4500B)	8.07	pH_Units		Field	#
Specific Conductance, Field	717	umhos/cm	1	Field	#
Temperature	13.54	Deg. C		Field	#
METALS					
Calcium, Dissolved	64.5	mg/L	0.10	EPA 200.7	#
Calcium, Total	60.0	mg/L	0.050	EPA 200.7	#
Magnesium, Dissolved	15.5	mg/L	0.10	EPA 200.7	#
Magnesium, Total	14.8	mg/L	0.050	EPA 200.7	#
Manganese, Dissolved	0.027	mg/L	0.0050	EPA 200.7	#
Manganese, Total	0.038	mg/L	0.0025	EPA 200.7	#
Potassium, Dissolved	6.9	mg/L	0.50	EPA 200.7	#
Potassium, Total	6.9	mg/L	0.25	EPA 200.7	#
Sodium, Dissolved	50.0	mg/L	0.50	EPA 200.7	#
Sodium, Total	48.8	mg/L	0.25	EPA 200.7	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	166	mg/L	5	SM2320B-2011	#
Alkalinity, Total	166	mg/L	5	SM2320B-2011	#
Chloride	102	mg/L	5.0	EPA 300.0	#
Nitrate-N	5.7	mg/L	2.5	EPA 300.0	#
pH	8.16	pH_Units		S4500HB-11	#
Specific Conductance	707	umhos/cm	5	SM2510B-2011	#
Sulfate	18.3	mg/L	5.0	EPA 300.0	#
Total Dissolved Solids	382	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	0.57	mg/L	0.50	SM5310B-14	#

Results

Client Sample ID	3125 River Road, Conestoga, PA	Collected	02/09/2024 13:33
Lab Sample ID	3345031001	Lab Receipt	02/09/2024 16:40

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
pH, Field (SM4500B)	8.07		pH_Units		Field	1	02/09/2024 13:33	BGS	P
Specific Conductance, Field	717		umhos/cm	1	Field	1	02/09/2024 13:33	BGS	P
Temperature	13.54		Deg. C		Field	1	02/09/2024 13:33	BGS	P

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Calcium, Dissolved	64.5		mg/L	0.10	EPA 200.7	1	02/13/2024 12:17	AXW	F1
Calcium, Total	60.0	3	mg/L	0.050	EPA 200.7	1	02/23/2024 12:42	AXW	D1
Iron, Dissolved	ND	ND	mg/L	0.060	EPA 200.7	1	02/13/2024 12:17	AXW	F1
Iron, Total	ND	ND	mg/L	0.030	EPA 200.7	1	02/23/2024 12:42	AXW	D1
Magnesium, Dissolved	15.5		mg/L	0.10	EPA 200.7	1	02/13/2024 12:17	AXW	F1
Magnesium, Total	14.8	3	mg/L	0.050	EPA 200.7	1	02/23/2024 12:42	AXW	D1
Manganese, Dissolved	0.027		mg/L	0.0050	EPA 200.7	1	02/13/2024 12:17	AXW	F1
Manganese, Total	0.038		mg/L	0.0025	EPA 200.7	1	02/23/2024 12:42	AXW	D1
Potassium, Dissolved	6.9		mg/L	0.50	EPA 200.7	1	02/13/2024 12:17	AXW	F1
Potassium, Total	6.9		mg/L	0.25	EPA 200.7	1	02/23/2024 12:42	AXW	D1
Sodium, Dissolved	50.0		mg/L	0.50	EPA 200.7	1	02/13/2024 12:17	AXW	F1
Sodium, Total	48.8		mg/L	0.25	EPA 200.7	1	02/23/2024 12:42	AXW	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	02/20/2024 13:15	ILY	M
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:15	ILY	M
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:15	ILY	M
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:15	ILY	M
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:15	ILY	M
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:15	ILY	M
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:15	ILY	M
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:15	ILY	M
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:15	ILY	M
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:15	ILY	M
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:15	ILY	M
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:15	ILY	M
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:15	ILY	M
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:15	ILY	M
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:15	ILY	M
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 13:15	ILY	M

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	87.3%	70 – 130	02/20/2024 13:15	

WET CHEMISTRY

Results

Client Sample ID	3125 River Road, Conestoga, PA	Collected	02/09/2024 13:33
Lab Sample ID	3345031001	Lab Receipt	02/09/2024 16:40

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	166		mg/L	5	SM2320B-2011	1	02/20/2024 04:43	KMV	A
Alkalinity, Total	166	1	mg/L	5	SM2320B-2011	1	02/20/2024 04:43	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	02/15/2024 17:01	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	02/14/2024 14:53	KMS	C
Chloride	102		mg/L	5.0	EPA 300.0	5	02/10/2024 16:36	GMM	A
Fluoride	ND	ND	mg/L	0.50	EPA 300.0	5	02/10/2024 16:36	GMM	A
Halogen, Total Organic (TOX)	ND	ND	ug/L	20.0	SW846 9020B	1	02/22/2024 16:15	PAG	K
Nitrate-N	5.7		mg/L	2.5	EPA 300.0	5	02/10/2024 16:36	GMM	A
Nitrite-N	ND	ND	mg/L	2.5	EPA 300.0	5	02/10/2024 16:36	GMM	A
pH	8.16	2	pH_Units		S4500HB-11	1	02/20/2024 04:43	KMV	A
Phenolics	ND	ND	mg/L	0.005	EPA 420.4	1	02/21/2024 17:31	AKH	J
Specific Conductance	707		umhos/cm	5	SM2510B-2011	1	02/21/2024 08:50	E1R	A
Sulfate	18.3		mg/L	5.0	EPA 300.0	5	02/10/2024 16:36	GMM	A
Total Dissolved Solids	382		mg/L	25	SM2540C-15	1	02/15/2024 17:00	RAG	A
Total Organic Carbon (TOC)	0.57		mg/L	0.50	SM5310B-14	1	02/13/2024 22:25	PAG	H
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	02/10/2024 07:04	NPF	A

Results

Client Sample ID	Trip Blank	Collected	02/09/2024 16:40
Lab Sample ID	3345031002	Lab Receipt	02/09/2024 16:40

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:23	ILY	A
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:23	ILY	A
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:23	ILY	A
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:23	ILY	A
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:23	ILY	A
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:23	ILY	A
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:23	ILY	A
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:23	ILY	A
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:23	ILY	A
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:23	ILY	A
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:23	ILY	A
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:23	ILY	A
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:23	ILY	A
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:23	ILY	A
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:23	ILY	A
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:23	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	88%	70 – 130	02/20/2024 12:23	

Results

Client Sample ID	Field Blank	Collected	02/09/2024 15:32
Lab Sample ID	3345031003	Lab Receipt	02/09/2024 16:40

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1-Trichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:49	ILY	A
1,1-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:49	ILY	A
1,1-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:49	ILY	A
1,2-Dibromoethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:49	ILY	A
1,2-Dichloroethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:49	ILY	A
Benzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:49	ILY	A
cis-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:49	ILY	A
Ethylbenzene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:49	ILY	A
Methylene Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:49	ILY	A
Tetrachloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:49	ILY	A
Toluene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:49	ILY	A
Total Xylenes	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:49	ILY	A
trans-1,2-Dichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:49	ILY	A
Trichloroethene	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:49	ILY	A
Trichlorofluoromethane	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:49	ILY	A
Vinyl Chloride	ND	ND	ug/L	0.50	EPA 524.2	1	02/20/2024 12:49	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
4-Bromofluorobenzene	460-00-4	85.2%	70 – 130	02/20/2024 12:49	

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3345031001	3125 River Road, Conestoga, PA	Field	N/A	
		EPA 200.7	EPA ACID	
		EPA 200.7	EPA TRMD	
		EPA 524.2	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		EPA 420.4	SW846 9066	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		SW846 9020B	N/A	
3345031002	Trip Blank	EPA 524.2	N/A	
3345031003	Field Blank	EPA 524.2	N/A	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3345031001	3125 River Road, Conestoga, PA	N/A	N/A	N/A		Field	1141973
		EPA ACID	1137019	02/13/2024 10:45	AXW	EPA 200.7	1137020
		EPA TRMD	1137300	02/13/2024 21:57	ANN	EPA 200.7	1144401
		N/A	N/A	N/A		EPA 524.2	1141870
		N/A	N/A	N/A		EPA 300.0	1135704
		N/A	N/A	N/A		EPA 410.4	1138068
		SW846 9066	1140403	02/21/2024 09:02	AKH	EPA 420.4	1142717
		N/A	N/A	N/A		S4500HB-11	1141532
		N/A	N/A	N/A		SM 4500-NH3G	1138121
		N/A	N/A	N/A		SM2130B-2011	1135700
		N/A	N/A	N/A		SM2320B-2011	1141532
		N/A	N/A	N/A		SM2510B-2011	1141974
		N/A	N/A	N/A		SM2540C-15	1138424
		N/A	N/A	N/A		SM5310B-14	1137115
		N/A	N/A	N/A		SW846 9020B	1143310
3345031002	Trip Blank	N/A	N/A	N/A		EPA 524.2	1141870
3345031003	Field Blank	N/A	N/A	N/A		EPA 524.2	1141870

ALS Environmental

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

3345031

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.:

(ted by Receiving Lab)

Cooler Temp: 3 Therm ID:

No. of Coolers: _____ Y N Initial

Custody Seals Present? [ ] [ ]

(If present) Seals Intact? [ ] [ ]

COC DAG 3 571

Receipt Info Completed By: DAG

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 Trip Blank Y N NA

NJ≤ 4 Days?

Rad Screen (uCi)

Courier/Tracking #:

SDWA Compliance Y N

PWSID

WV Containers 0-6°C Y N NA

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

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TOC	O-OH	TOX	EPA 524.2 - Form 52	FM	NH3-N, COD	Dissolved Metals: Ca, Fe, Mg, Mn, K, Na	Metals: Ca, Fe, Mg, Mn, K, Na	pH, TDS, NO2, NO3, Cl, SO4, F, Tb, SpC	Alkalinity, HCO3
					Enter Number of Containers Per Sample or Field Results Below.									
1 3125RIVERRD	02/09/24	1333	G	DW	2	1	2	3	X	1	2	2	1	1
2. Trip Blank	02/09/24	1640	G	DI				2						
3. Field Blank	02/09/24	1532	G	DI				2						
4														
5														
6														
7														
8														
9														
10														

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 XG Shaode	2-9-24	1640	2	2-9-24	1640
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