2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
05/22/2024
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, 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: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Creswell Landfill

Facitlity ID (as issued by DEP): 100008

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (Do MM' SS.S")

Monitoring Point Number: CWMP007W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point — Latitude: 39 o 57 ' 24.53 " — Longitude: 76 o 26 ' 33.28 "

Depth to Water Level: 6.18 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 1.50 ft — Elevation of Water Level: 447.22 ft./MSL

Sampling Depth: 33 ft — Volume of Water Column: 44.53 gal

Total Well Depth: 36.5 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 2.3

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 4/15/2024 — Sample Collection Time: 10:41

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3355103001 — Final Lab Analysis CompletionDate: 4/29/2024

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 100008
Monitoring Point No. CWMP007W
Sample Date 4/15/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	ASTM D6919-09
BICARBONATE	14	SM20 2321
CALCIUM, TOTAL	17.7	SW846 6010C
CALCIUM, DISSOLVED	18.4	SW846 6010C
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	79.8	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	56 ND	SW846 6010C
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010C
MAGNESIUM, TOTAL	9.9	SW846 6010C
MAGNESIUM, DISSOLVED	9.8	SW846 6010C
MANGANESE, TOTAL (ug/l)	7.1	SW846 6010C
MANGANESE, DISSOLVED (ug/l)	7.8	SW846 6010C
NITRATE-NITROGEN	10	EPA 300
pH-FIELD (SU)	5.17	FIELD
pH-LAB (SU)	6.93	SM4500B
POTASSIUM, TOTAL	2.2	SW846 6010C
POTASSIUM, DISSOLVED	2.2	6SW846 010C
SODIUM, TOTAL	34.5	SW846 6010C
SODIUM, DISSOLVED	34.2	SW 846 6010C
SPEC. COND., FIELD (umhos/cm)	578	FIELD
SPEC. COND., LAB (umhos/cm)	396	EPA 120.1
SULFATE	17.9	EPA 300
ALKALINITY	14	SM20 2320B
TDS (TOTAL DISSOLVED SOLIDS)	242	SM20 2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20 5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	0.3 ND	SM 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	100008
Monitoring Point No.	CWMP007W
Sample Date	4/15/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
cis 1,2-DICHLOROETHENE	1 ND	SW846 8260B
trans 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP007W
Sample Date	4/15/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010C
ARSENIC, DISSOLVED	3 ND	SW846 6010C
BARIUM, TOTAL	53	SW846 6010C
BARIUM, DISSOLVED	51	SW846 6010C
CADMIUM, TOTAL	1.1 ND	SW846 6010C
CADMIUM, DISSOLVED	1.1 ND	SW846 6010C
CHROMIUM, TOTAL	2.2 ND	SW846 6010C
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010C
COPPER, TOTAL	5.6 ND	SW846 6010C
COPPER, DISSOLVED	5.6 ND	SW846 6010C
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010C
LEAD, DISSOLVED	2.2 ND	SW846 6010C
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010C
SELENIUM, DISSOLVED	5.6 ND	SW846 6010C
SILVER, TOTAL	2.2 ND	SW846 6010C
SILVER, DISSOLVED	2.2 ND	SW846 6010C
ZINC, TOTAL	6.2	SW846 6010C
ZINC, DISSOLVED	6	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP007W
Sample Date	4/15/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE (CHLORODIBROMOMET	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
cis 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
trans 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE (MIBK)	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP007W
Sample Date	4/15/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE) CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE (DBCP) (DIBROMO	7 ND	SW846 8260B
trans 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	EPA 200.8
BERYLLIUM	1.1 ND	EPA 200.8
COBALT	5.6 ND	SW846 6010C
NICKEL	6.1	SW846 6010C
THALLIUM	1.1 ND	EPA 200.8
VANADIUM	2.2 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP007W
Sample Date	4/15/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

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FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Creswell Landfill

Facitlity ID (as issued by DEP): 100008

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (Do MM' SS.S")

Monitoring Point Number: CWMP001W — X Well ___ Spring ___ Stream ___ Other

X Upgradient/Upstream ___ Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point — Latitude: 39 o 57 ' 27.43 " — Longitude: 76 o 26 ' 14.4 "

Depth to Water Level: 25.79 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 1.23 ft — Elevation of Water Level: 489.34 ft./MSL

Sampling Depth: 57 ft — Volume of Water Column: 59.50 gal

Total Well Depth: 66.3 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 3.2

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 4/15/2024 — Sample Collection Time: 11:43

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3355103002 — Final Lab Analysis CompletionDate: 4/29/2024

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 100008
Monitoring Point No. CWMP001W
Sample Date 4/15/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	ASTM D6919-09
BICARBONATE	8	SM20 2321
CALCIUM, TOTAL	14	SW846 6010C
CALCIUM, DISSOLVED	13.5	SW846 6010C
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	27.8	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	2800	SW846 6010C
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010C
MAGNESIUM, TOTAL	10.1	SW846 6010C
MAGNESIUM, DISSOLVED	9.4	SW846 6010C
MANGANESE, TOTAL (ug/l)	92	SW846 6010C
MANGANESE, DISSOLVED (ug/l)	59	SW846 6010C
NITRATE-NITROGEN	18.1	EPA 300
pH-FIELD (SU)	4.88	FIELD
pH-LAB (SU)	6.76	SM4500B
POTASSIUM, TOTAL	2.3	SW846 6010C
POTASSIUM, DISSOLVED	2.1	6SW846 010C
SODIUM, TOTAL	13.6	SW846 6010C
SODIUM, DISSOLVED	13.2	SW 846 6010C
SPEC. COND., FIELD (umhos/cm)	362	FIELD
SPEC. COND., LAB (umhos/cm)	260	EPA 120.1
SULFATE	2.9	EPA 300
ALKALINITY	8	SM20 2320B
TDS (TOTAL DISSOLVED SOLIDS)	182	SM20 2540C
TOC (TOTAL ORGANIC CARBON)	0.5 ND	SM20 5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	70	SM 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	100008
Monitoring Point No.	CWMP001W
Sample Date	4/15/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
cis 1,2-DICHLOROETHENE	1 ND	SW846 8260B
trans 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP001W
Sample Date	4/15/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010C
ARSENIC, DISSOLVED	3 ND	SW846 6010C
BARIUM, TOTAL	83	SW846 6010C
BARIUM, DISSOLVED	73	SW846 6010C
CADMIUM, TOTAL	1.1 ND	SW846 6010C
CADMIUM, DISSOLVED	1.1 ND	SW846 6010C
CHROMIUM, TOTAL	2.2 ND	SW846 6010C
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010C
COPPER, TOTAL	5.8	SW846 6010C
COPPER, DISSOLVED	5.6 ND	SW846 6010C
LEAD-FLAMELESS, TOTAL	7.6	SW846 6010C
LEAD, DISSOLVED	2.2 ND	SW846 6010C
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010C
SELENIUM, DISSOLVED	5.6 ND	SW846 6010C
SILVER, TOTAL	2.2 ND	SW846 6010C
SILVER, DISSOLVED	2.2 ND	SW846 6010C
ZINC, TOTAL	25	SW846 6010C
ZINC, DISSOLVED	16	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP001W
Sample Date	4/15/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE (CHLORODIBROMOMET	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
cis 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
trans 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE (MIBK)	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP001W
Sample Date	4/15/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE) CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE (DBCP) (DIBROMO	7 ND	SW846 8260B
trans 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	EPA 200.8
BERYLLIUM	1.1 ND	EPA 200.8
COBALT	5.6 ND	SW846 6010C
NICKEL	7.4	SW846 6010C
THALLIUM	1.1 ND	EPA 200.8
VANADIUM	2.2 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP001W
Sample Date	4/15/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

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General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Creswell Landfill

Facitlity ID (as issued by DEP): 100008

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: CWMP005W — X Well ___ Spring ___ Stream ___ Other

X Upgradient/Upstream ___ Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point — Latitude: 39 ° 57 ' 11.17 " — Longitude: 76 ° 26 ' 7.08 "

Depth to Water Level: 37.99 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: -0.37 ft — Elevation of Water Level: 475.44 ft./MSL

Sampling Depth: 130 ft — Volume of Water Column: 149.82 gal

Total Well Depth: 140 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 1.0

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 4/15/2024 — Sample Collection Time: 12:43

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3355103003 — Final Lab Analysis CompletionDate: 4/29/2024

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 100008
Monitoring Point No. CWMP005W
Sample Date 4/15/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	ASTM D6919-09
BICARBONATE	16	SM20 2321
CALCIUM, TOTAL	15.7	SW846 6010C
CALCIUM, DISSOLVED	15.9	SW846 6010C
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	83.8	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	56 ND	SW846 6010C
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010C
MAGNESIUM, TOTAL	8.5	SW846 6010C
MAGNESIUM, DISSOLVED	8.5	SW846 6010C
MANGANESE, TOTAL (ug/l)	54	SW846 6010C
MANGANESE, DISSOLVED (ug/l)	52	SW846 6010C
NITRATE-NITROGEN	8.7	EPA 300
pH-FIELD (SU)	5.32	FIELD
pH-LAB (SU)	7.09	SM4500B
POTASSIUM, TOTAL	2.2	SW846 6010C
POTASSIUM, DISSOLVED	2.2	6SW846 010C
SODIUM, TOTAL	36.2	SW846 6010C
SODIUM, DISSOLVED	35.7	SW 846 6010C
SPEC. COND., FIELD (umhos/cm)	551	FIELD
SPEC. COND., LAB (umhos/cm)	377	EPA 120.1
SULFATE	5	EPA 300
ALKALINITY	16	SM20 2320B
TDS (TOTAL DISSOLVED SOLIDS)	240	SM20 2540C
TOC (TOTAL ORGANIC CARBON)	0.89	SM20 5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	0.45	SM 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	100008
Monitoring Point No.	CWMP005W
Sample Date	4/15/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
cis 1,2-DICHLOROETHENE	1 ND	SW846 8260B
trans 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP005W
Sample Date	4/15/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010C
ARSENIC, DISSOLVED	3 ND	SW846 6010C
BARIUM, TOTAL	53	SW846 6010C
BARIUM, DISSOLVED	54	SW846 6010C
CADMIUM, TOTAL	1.1 ND	SW846 6010C
CADMIUM, DISSOLVED	1.1 ND	SW846 6010C
CHROMIUM, TOTAL	2.2 ND	SW846 6010C
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010C
COPPER, TOTAL	5.6 ND	SW846 6010C
COPPER, DISSOLVED	5.6 ND	SW846 6010C
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010C
LEAD, DISSOLVED	2.2 ND	SW846 6010C
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010C
SELENIUM, DISSOLVED	5.6 ND	SW846 6010C
SILVER, TOTAL	2.2 ND	SW846 6010C
SILVER, DISSOLVED	2.2 ND	SW846 6010C
ZINC, TOTAL	9.1	SW846 6010C
ZINC, DISSOLVED	9.1	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP005W
Sample Date	4/15/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE (CHLORODIBROMOMET	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
cis 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
trans 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE (MIBK)	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP005W
Sample Date	4/15/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE) CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE (DBCP) (DIBROMO	7 ND	SW846 8260B
trans 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	EPA 200.8
BERYLLIUM	1.1 ND	EPA 200.8
COBALT	5.6 ND	SW846 6010C
NICKEL	5.6 ND	SW846 6010C
THALLIUM	1.1 ND	EPA 200.8
VANADIUM	2.2 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP005W
Sample Date	4/15/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
05/22/2024
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, 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: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Creswell Landfill

Facitlity ID (as issued by DEP): 100008

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: CWMP018S — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor

Sampling Point — Latitude: 39 ° 56 ' 55.11 " — Longitude: 76 ° 26 ' 51.66 "

Depth to Water Level: ___ ft — Measured from: ___ Land Surface X TOC

Casing Stickup: ___ ft — Elevation of Water Level: #Error ft./MSL

Sampling Depth: 0 ft — Volume of Water Column: #Error gal

Total Well Depth: ___ ft — Sampling Method: ___ Pumped ___ Bailed X Grab

Well Purged: ___ Yes X No — Well Volumes Purged: ___

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 4/17/2024 — Sample Collection Time: 11:45

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3355510001 — Final Lab Analysis CompletionDate: 4/29/2024

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 100008
Monitoring Point No. CWMP018S
Sample Date 4/17/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	ASTM D6919-09
BICARBONATE	295	SM20 2321
CALCIUM, TOTAL	59	SW846 6010C
CALCIUM, DISSOLVED	58.5	SW846 6010C
COD (CHEMICAL OXYGEN DEMAND)	23	EPA 410.4
CHLORIDE	327	EPA 300
FLUORIDE	0.5 ND	EPA 300
IRON, TOTAL (ug/l)	83	SW846 6010C
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010C
MAGNESIUM, TOTAL	64	SW846 6010C
MAGNESIUM, DISSOLVED	63.2	SW846 6010C
MANGANESE, TOTAL (ug/l)	28	SW846 6010C
MANGANESE, DISSOLVED (ug/l)	8.4	SW846 6010C
NITRATE-NITROGEN	18.5	EPA 300
pH-FIELD (SU)	8.37	FIELD
pH-LAB (SU)	8.58	SM4500B
POTASSIUM, TOTAL	17.3	SW846 6010C
POTASSIUM, DISSOLVED	17.3	6SW846 010C
SODIUM, TOTAL	187	SW846 6010C
SODIUM, DISSOLVED	191	SW 846 6010C
SPEC. COND., FIELD (umhos/cm)	2491	FIELD
SPEC. COND., LAB (umhos/cm)	1770	EPA 120.1
SULFATE	25.3	EPA 300
ALKALINITY	337	SM20 2320B
TDS (TOTAL DISSOLVED SOLIDS)	962	SM20 2540C
TOC (TOTAL ORGANIC CARBON)	7.3	SM20 5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	1.3	SM 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	100008
Monitoring Point No.	CWMP018S
Sample Date	4/17/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
cis 1,2-DICHLOROETHENE	1 ND	SW846 8260B
trans 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP018S
Sample Date	4/17/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010C
ARSENIC, DISSOLVED	3 ND	SW846 6010C
BARIUM, TOTAL	45	SW846 6010C
BARIUM, DISSOLVED	51	SW846 6010C
CADMIUM, TOTAL	1.1 ND	SW846 6010C
CADMIUM, DISSOLVED	1.1 ND	SW846 6010C
CHROMIUM, TOTAL	2.2 ND	SW846 6010C
CHROMIUM, DISSOLVED	2.9	SW846 6010C
COPPER, TOTAL	5.6 ND	SW846 6010C
COPPER, DISSOLVED	11	SW846 6010C
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010C
LEAD, DISSOLVED	2.2 ND	SW846 6010C
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010C
SELENIUM, DISSOLVED	5.6 ND	SW846 6010C
SILVER, TOTAL	2.2 ND	SW846 6010C
SILVER, DISSOLVED	2.2 ND	SW846 6010C
ZINC, TOTAL	12	SW846 6010C
ZINC, DISSOLVED	16	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP018S
Sample Date	4/17/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE (CHLORODIBROMOMET	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
cis 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
trans 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE (MIBK)	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP018S
Sample Date	4/17/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE) CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE (DBCP) (DIBROMO	7 ND	SW846 8260B
trans 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	EPA 200.8
BERYLLIUM	1.1 ND	EPA 200.8
COBALT	5.6 ND	SW846 6010C
NICKEL	14	SW846 6010C
THALLIUM	1.1 ND	EPA 200.8
VANADIUM	2.2 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP018S
Sample Date	4/17/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
05/22/2024
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, 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: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Creswell Landfill

Facitlity ID (as issued by DEP): 100008

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: CWMP017S — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point — Latitude: 39 ° 57 ' 20.41 " — Longitude: 76 ° 26 ' 45.1 "

Depth to Water Level: ___ ft — Measured from: ___ Land Surface X TOC

Casing Stickup: ___ ft — Elevation of Water Level: #Error ft./MSL

Sampling Depth: 0 ft — Volume of Water Column: #Error gal

Total Well Depth: ___ ft — Sampling Method: ___ Pumped ___ Bailed X Grab

Well Purged: ___ Yes X No — Well Volumes Purged: ___

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 4/17/2024 — Sample Collection Time: 12:06

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3355510002 — Final Lab Analysis CompletionDate: 4/29/2024

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No	100008
Monitoring Point No.	CWMP017S
Sample Date	4/17/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	ASTM D6919-09
BICARBONATE	458	SM20 2321
CALCIUM, TOTAL	55.5	SW846 6010C
CALCIUM, DISSOLVED	48.9	SW846 6010C
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	397	EPA 300
FLUORIDE	0.5 ND	EPA 300
IRON, TOTAL (ug/l)	140	SW846 6010C
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010C
MAGNESIUM, TOTAL	77.7	SW846 6010C
MAGNESIUM, DISSOLVED	63.1	SW846 6010C
MANGANESE, TOTAL (ug/l)	24	SW846 6010C
MANGANESE, DISSOLVED (ug/l)	23	SW846 6010C
NITRATE-NITROGEN	21.3	EPA 300
pH-FIELD (SU)	8.03	FIELD
pH-LAB (SU)	8.43	SM4500B
POTASSIUM, TOTAL	15.5	SW846 6010C
POTASSIUM, DISSOLVED	12.8	6SW846 010C
SODIUM, TOTAL	229	SW846 6010C
SODIUM, DISSOLVED	191	SW 846 6010C
SPEC. COND., FIELD (umhos/cm)	3139	FIELD
SPEC. COND., LAB (umhos/cm)	2120	EPA 120.1
SULFATE	27.8	EPA 300
ALKALINITY	458	SM20 2320B
TDS (TOTAL DISSOLVED SOLIDS)	1160	SM20 2540C
TOC (TOTAL ORGANIC CARBON)	4	SM20 5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	1.5	SM 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	100008
Monitoring Point No.	CWMP017S
Sample Date	4/17/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
cis 1,2-DICHLOROETHENE	1 ND	SW846 8260B
trans 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP017S
Sample Date	4/17/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010C
ARSENIC, DISSOLVED	3 ND	SW846 6010C
BARIUM, TOTAL	34	SW846 6010C
BARIUM, DISSOLVED	35	SW846 6010C
CADMIUM, TOTAL	1.1 ND	SW846 6010C
CADMIUM, DISSOLVED	1.1 ND	SW846 6010C
CHROMIUM, TOTAL	2.2 ND	SW846 6010C
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010C
COPPER, TOTAL	5.6 ND	SW846 6010C
COPPER, DISSOLVED	5.6 ND	SW846 6010C
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010C
LEAD, DISSOLVED	2.2 ND	SW846 6010C
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010C
SELENIUM, DISSOLVED	5.6 ND	SW846 6010C
SILVER, TOTAL	2.2 ND	SW846 6010C
SILVER, DISSOLVED	2.2 ND	SW846 6010C
ZINC, TOTAL	22	SW846 6010C
ZINC, DISSOLVED	18	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP017S
Sample Date	4/17/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE (CHLORODIBROMOMET	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
cis 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
trans 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE (MIBK)	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP017S
Sample Date	4/17/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE) CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE (DBCP) (DIBROMO	7 ND	SW846 8260B
trans 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	EPA 200.8
BERYLLIUM	1.1 ND	EPA 200.8
COBALT	5.6 ND	SW846 6010C
NICKEL	8.6	SW846 6010C
THALLIUM	1.1 ND	EPA 200.8
VANADIUM	2.2 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP017S
Sample Date	4/17/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
05/22/2024
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, 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: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Creswell Landfill

Facitlity ID (as issued by DEP): 100008

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: CWMP016W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point — Latitude: 39 ° 56 ' 55.57 " — Longitude: 76 ° 26 ' 50.59 "

Depth to Water Level: 52.45 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.53 ft — Elevation of Water Level: 259.52 ft./MSL

Sampling Depth: 71 ft — Volume of Water Column: ___ gal

Total Well Depth: 78.03 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 3.4

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 4/18/2024 — Sample Collection Time: 10:56

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3355780001 — Final Lab Analysis CompletionDate: 4/29/2024

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 100008
Monitoring Point No. CWMP016W
Sample Date 4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	ASTM D6919-09
BICARBONATE	13	SM20 2321
CALCIUM, TOTAL	5	SW846 6010C
CALCIUM, DISSOLVED	4.9	SW846 6010C
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	2.1	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	1300	SW846 6010C
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010C
MAGNESIUM, TOTAL	1.2	SW846 6010C
MAGNESIUM, DISSOLVED	1.2	SW846 6010C
MANGANESE, TOTAL (ug/l)	23	SW846 6010C
MANGANESE, DISSOLVED (ug/l)	8.9	SW846 6010C
NITRATE-NITROGEN	1.2	EPA 300
pH-FIELD (SU)	5.5	FIELD
pH-LAB (SU)	7.6	SM4500B
POTASSIUM, TOTAL	0.49	SW846 6010C
POTASSIUM, DISSOLVED	0.5	6SW846 010C
SODIUM, TOTAL	2.9	SW846 6010C
SODIUM, DISSOLVED	2.9	SW 846 6010C
SPEC. COND., FIELD (umhos/cm)	82	FIELD
SPEC. COND., LAB (umhos/cm)	56	EPA 120.1
SULFATE	10.5	EPA 300
ALKALINITY	13	SM20 2320B
TDS (TOTAL DISSOLVED SOLIDS)	49	SM20 2540C
TOC (TOTAL ORGANIC CARBON)	0.82	SM20 5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	22	SM 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	100008
Monitoring Point No.	CWMP016W
Sample Date	4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
cis 1,2-DICHLOROETHENE	1 ND	SW846 8260B
trans 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP016W
Sample Date	4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010C
ARSENIC, DISSOLVED	3 ND	SW846 6010C
BARIUM, TOTAL	9.9	SW846 6010C
BARIUM, DISSOLVED	10	SW846 6010C
CADMIUM, TOTAL	1.1 ND	SW846 6010C
CADMIUM, DISSOLVED	1.1 ND	SW846 6010C
CHROMIUM, TOTAL	3.3	SW846 6010C
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010C
COPPER, TOTAL	5.6 ND	SW846 6010C
COPPER, DISSOLVED	5.6 ND	SW846 6010C
LEAD-FLAMELESS, TOTAL	3.6	SW846 6010C
LEAD, DISSOLVED	2.2 ND	SW846 6010C
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010C
SELENIUM, DISSOLVED	5.6 ND	SW846 6010C
SILVER, TOTAL	2.2 ND	SW846 6010C
SILVER, DISSOLVED	2.2 ND	SW846 6010C
ZINC, TOTAL	5.6 ND	SW846 6010C
ZINC, DISSOLVED	5.6 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP016W
Sample Date	4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE (CHLORODIBROMOMET	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
cis 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
trans 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE (MIBK)	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP016W
Sample Date	4/18/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE) CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE (DBCP) (DIBROMO	7 ND	SW846 8260B
trans 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	EPA 200.8
BERYLLIUM	1.1 ND	EPA 200.8
COBALT	10	SW846 6010C
NICKEL	5.6 ND	SW846 6010C
THALLIUM	1.1 ND	EPA 200.8
VANADIUM	2.2 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP016W
Sample Date	4/18/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
05/22/2024
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, 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: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Creswell Landfill

Facitlity ID (as issued by DEP): 100008

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: CWMP010W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point — Latitude: 39 ° 57 ' 2.38 " — Longitude: 76 ° 26 ' 57.92 "

Depth to Water Level: 8.51 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.10 ft — Elevation of Water Level: 352.39 ft./MSL

Sampling Depth: 17 ft — Volume of Water Column: 7.24 gal

Total Well Depth: 19.6 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 1.0

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 4/18/2024 — Sample Collection Time: 11:40

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3355780002 — Final Lab Analysis CompletionDate: 4/29/2024

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 100008
Monitoring Point No. CWMP010W
Sample Date 4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	ASTM D6919-09
BICARBONATE	97	SM20 2321
CALCIUM, TOTAL	22.2	SW846 6010C
CALCIUM, DISSOLVED	22.4	SW846 6010C
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	62.4	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	70	SW846 6010C
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010C
MAGNESIUM, TOTAL	17.5	SW846 6010C
MAGNESIUM, DISSOLVED	17.8	SW846 6010C
MANGANESE, TOTAL (ug/l)	21	SW846 6010C
MANGANESE, DISSOLVED (ug/l)	8.6	SW846 6010C
NITRATE-NITROGEN	5.9	EPA 300
pH-FIELD (SU)	6.29	FIELD
pH-LAB (SU)	7.99	SM4500B
POTASSIUM, TOTAL	3.9	SW846 6010C
POTASSIUM, DISSOLVED	3.9	6SW846 010C
SODIUM, TOTAL	44.3	SW846 6010C
SODIUM, DISSOLVED	44.5	SW 846 6010C
SPEC. COND., FIELD (umhos/cm)	673	FIELD
SPEC. COND., LAB (umhos/cm)	469	EPA 120.1
SULFATE	22.6	EPA 300
ALKALINITY	97	SM20 2320B
TDS (TOTAL DISSOLVED SOLIDS)	254	SM20 2540C
TOC (TOTAL ORGANIC CARBON)	2.1	SM20 5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	0.8	SM 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	100008
Monitoring Point No.	CWMP010W
Sample Date	4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
cis 1,2-DICHLOROETHENE	1 ND	SW846 8260B
trans 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP010W
Sample Date	4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010C
ARSENIC, DISSOLVED	3 ND	SW846 6010C
BARIUM, TOTAL	29	SW846 6010C
BARIUM, DISSOLVED	29	SW846 6010C
CADMIUM, TOTAL	1.1 ND	SW846 6010C
CADMIUM, DISSOLVED	1.1 ND	SW846 6010C
CHROMIUM, TOTAL	4.5	SW846 6010C
CHROMIUM, DISSOLVED	2.6	SW846 6010C
COPPER, TOTAL	5.6 ND	SW846 6010C
COPPER, DISSOLVED	5.6 ND	SW846 6010C
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010C
LEAD, DISSOLVED	2.2 ND	SW846 6010C
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010C
SELENIUM, DISSOLVED	5.6 ND	SW846 6010C
SILVER, TOTAL	2.2 ND	SW846 6010C
SILVER, DISSOLVED	2.2 ND	SW846 6010C
ZINC, TOTAL	5.6 ND	SW846 6010C
ZINC, DISSOLVED	5.6 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP010W
Sample Date	4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE (CHLORODIBROMOMET	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
cis 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
trans 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE (MIBK)	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP010W
Sample Date	4/18/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE) CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE (DBCP) (DIBROMO	7 ND	SW846 8260B
trans 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	EPA 200.8
BERYLLIUM	1.1 ND	EPA 200.8
COBALT	5.6 ND	SW846 6010C
NICKEL	12	SW846 6010C
THALLIUM	1.1 ND	EPA 200.8
VANADIUM	2.2 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP010W
Sample Date	4/18/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
05/22/2024
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, 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: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Creswell Landfill

Facitlity ID (as issued by DEP): 100008

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (Do MM' SS.S")

Monitoring Point Number: CWMP009W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point — Latitude: 39 o 57 ' 10.82 " — Longitude: 76 o 26 ' 55.8 "

Depth to Water Level: 8.95 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.70 ft — Elevation of Water Level: 395.25 ft./MSL

Sampling Depth: 16 ft — Volume of Water Column: 7.02 gal

Total Well Depth: 19.7 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 4.4

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 4/18/2024 — Sample Collection Time: 12:25

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3355780003 — Final Lab Analysis CompletionDate: 5/1/2024

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 100008
Monitoring Point No. CWMP009W
Sample Date 4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	30.7	ASTM D6919-09
BICARBONATE	546	SM20 2321
CALCIUM, TOTAL	161	SW846 6010C
CALCIUM, DISSOLVED	175	SW846 6010C
COD (CHEMICAL OXYGEN DEMAND)	109	EPA 410.4
CHLORIDE	671	EPA 300
FLUORIDE	0.5 ND	EPA 300
IRON, TOTAL (ug/l)	34200	SW846 6010C
IRON, DISSOLVED (ug/l)	35600	SW846 6010C
MAGNESIUM, TOTAL	85.1	SW846 6010C
MAGNESIUM, DISSOLVED	91	SW846 6010C
MANGANESE, TOTAL (ug/l)	13100	SW846 6010C
MANGANESE, DISSOLVED (ug/l)	13600	SW846 6010C
NITRATE-NITROGEN	2.5 ND	EPA 300
pH-FIELD (SU)	6.09	FIELD
pH-LAB (SU)	7.62	SM4500B
POTASSIUM, TOTAL	32.6	SW846 6010C
POTASSIUM, DISSOLVED	34.1	6SW846 010C
SODIUM, TOTAL	213	SW846 6010C
SODIUM, DISSOLVED	213	SW 846 6010C
SPEC. COND., FIELD (umhos/cm)	4322	FIELD
SPEC. COND., LAB (umhos/cm)	3290	EPA 120.1
SULFATE	6.7	EPA 300
ALKALINITY	546	SM20 2320B
TDS (TOTAL DISSOLVED SOLIDS)	1650	SM20 2540C
TOC (TOTAL ORGANIC CARBON)	36.4	SM20 5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	50	SM 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	100008
Monitoring Point No.	CWMP009W
Sample Date	4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	2.2	SW846 8260B
1,2-DIBROMOETHANE (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1.2	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
cis 1,2-DICHLOROETHENE	1 ND	SW846 8260B
trans 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP009W
Sample Date	4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	4.2	SW846 6010C
ARSENIC, DISSOLVED	4.7	SW846 6010C
BARIUM, TOTAL	860	SW846 6010C
BARIUM, DISSOLVED	850	SW846 6010C
CADMIUM, TOTAL	1.1 ND	SW846 6010C
CADMIUM, DISSOLVED	1.1 ND	SW846 6010C
CHROMIUM, TOTAL	3.9	SW846 6010C
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010C
COPPER, TOTAL	5.6 ND	SW846 6010C
COPPER, DISSOLVED	5.6 ND	SW846 6010C
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010C
LEAD, DISSOLVED	2.2 ND	SW846 6010C
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010C
SELENIUM, DISSOLVED	5.6 ND	SW846 6010C
SILVER, TOTAL	2.2 ND	SW846 6010C
SILVER, DISSOLVED	2.2 ND	SW846 6010C
ZINC, TOTAL	5.6 ND	SW846 6010C
ZINC, DISSOLVED	5.6 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP009W
Sample Date	4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	16.4	SW846 8260B
CHLOROETHANE	8.5	SW846 8260B
DIBROMOCHLOROMETHANE (CHLORODIBROMOMET	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	2.2	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	10.4	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
cis 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
trans 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE (MIBK)	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP009W
Sample Date	4/18/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE) CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE (DBCP) (DIBROMO	7 ND	SW846 8260B
trans 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	EPA 200.8
BERYLLIUM	1.1 ND	EPA 200.8
COBALT	63	SW846 6010C
NICKEL	110	SW846 6010C
THALLIUM	1.1 ND	EPA 200.8
VANADIUM	2.2 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP009W
Sample Date	4/18/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number
TRIMETHYLSILANOL	1066-40-6
ISOBUTANE	75-28-5

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
05/22/2024
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, 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: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Creswell Landfill

Facitlity ID (as issued by DEP): 100008

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: CWMP008W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point — Latitude: 39 ° 57 ' 16.97 " — Longitude: 76 ° 26 ' 47.58 "

Depth to Water Level: 2.21 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.80 ft — Elevation of Water Level: 420.09 ft./MSL

Sampling Depth: 19 ft — Volume of Water Column: 3.36 gal

Total Well Depth: 22.8 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 6.6

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 4/18/2024 — Sample Collection Time: 13:28

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3355780004 — Final Lab Analysis CompletionDate: 5/8/2024

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 100008
Monitoring Point No. CWMP008W
Sample Date 4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	5.27	ASTM D6919-09
BICARBONATE	341	SM20 2321
CALCIUM, TOTAL	57.6	SW846 6010C
CALCIUM, DISSOLVED	57.7	SW846 6010C
COD (CHEMICAL OXYGEN DEMAND)	23	EPA 410.4
CHLORIDE	26.1	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	21200	SW846 6010C
IRON, DISSOLVED (ug/l)	21000	SW846 6010C
MAGNESIUM, TOTAL	28.9	SW846 6010C
MAGNESIUM, DISSOLVED	29.7	SW846 6010C
MANGANESE, TOTAL (ug/l)	14400	SW846 6010C
MANGANESE, DISSOLVED (ug/l)	15400	SW846 6010C
NITRATE-NITROGEN	1 ND	EPA 300
pH-FIELD (SU)	6.07	FIELD
pH-LAB (SU)	7.86	SM4500B
POTASSIUM, TOTAL	7.6	SW846 6010C
POTASSIUM, DISSOLVED	7.8	6SW846 010C
SODIUM, TOTAL	30.6	SW846 6010C
SODIUM, DISSOLVED	31.9	SW 846 6010C
SPEC. COND., FIELD (umhos/cm)	1113	FIELD
SPEC. COND., LAB (umhos/cm)	730	EPA 120.1
SULFATE	6.3	EPA 300
ALKALINITY	341	SM20 2320B
TDS (TOTAL DISSOLVED SOLIDS)	412	SM20 2540C
TOC (TOTAL ORGANIC CARBON)	7.7	SM20 5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	19	SM 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	100008
Monitoring Point No.	CWMP008W
Sample Date	4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	2.2	SW846 8260B
1,2-DIBROMOETHANE (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	2.2	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
cis 1,2-DICHLOROETHENE	1 ND	SW846 8260B
trans 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP008W
Sample Date	4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010C
ARSENIC, DISSOLVED	3 ND	SW846 6010C
BARIUM, TOTAL	130	SW846 6010C
BARIUM, DISSOLVED	130	SW846 6010C
CADMIUM, TOTAL	1.1 ND	SW846 6010C
CADMIUM, DISSOLVED	1.1 ND	SW846 6010C
CHROMIUM, TOTAL	2.2 ND	SW846 6010C
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010C
COPPER, TOTAL	5.6 ND	SW846 6010C
COPPER, DISSOLVED	5.6 ND	SW846 6010C
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010C
LEAD, DISSOLVED	2.2 ND	SW846 6010C
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010C
SELENIUM, DISSOLVED	5.6 ND	SW846 6010C
SILVER, TOTAL	2.2 ND	SW846 6010C
SILVER, DISSOLVED	2.2 ND	SW846 6010C
ZINC, TOTAL	5.6 ND	SW846 6010C
ZINC, DISSOLVED	5.6 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP008W
Sample Date	4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	8.3	SW846 8260B
CHLOROETHANE	7.1	SW846 8260B
DIBROMOCHLOROMETHANE (CHLORODIBROMOMET	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1.4	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	9.8	SW846 8260B
DICHLORODIFLUOROMETHANE	2.4	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
cis 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
trans 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE (MIBK)	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP008W
Sample Date	4/18/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE) CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE (DBCP) (DIBROMO	7 ND	SW846 8260B
trans 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	EPA 200.8
BERYLLIUM	1.1 ND	EPA 200.8
COBALT	28	SW846 6010C
NICKEL	20	SW846 6010C
THALLIUM	1.1 ND	EPA 200.8
VANADIUM	2.2 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP008W
Sample Date	4/18/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
05/22/2024
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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General Reference: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Creswell Landfill

Facitlity ID (as issued by DEP): 100008

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: CWMP004W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point — Latitude: 39 ° 57 ' 17.9 " — Longitude: 76 ° 26 ' 7.05 "

Depth to Water Level: 55.83 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: -1.37 ft — Elevation of Water Level: 473.70 ft./MSL

Sampling Depth: 130 ft — Volume of Water Column: 123.62 gal

Total Well Depth: 140 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 2.1

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 4/18/2024 — Sample Collection Time: 15:40

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3355780005 — Final Lab Analysis CompletionDate: 5/1/2024

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 100008
Monitoring Point No. CWMP004W
Sample Date 4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	ASTM D6919-09
BICARBONATE	28	SM20 2321
CALCIUM, TOTAL	20.5	SW846 6010C
CALCIUM, DISSOLVED	20.1	SW846 6010C
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	52.1	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	56 ND	SW846 6010C
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010C
MAGNESIUM, TOTAL	7.1	SW846 6010C
MAGNESIUM, DISSOLVED	7.2	SW846 6010C
MANGANESE, TOTAL (ug/l)	11	SW846 6010C
MANGANESE, DISSOLVED (ug/l)	15	SW846 6010C
NITRATE-NITROGEN	5.5	EPA 300
pH-FIELD (SU)	5.66	FIELD
pH-LAB (SU)	7.36	SM4500B
POTASSIUM, TOTAL	1.4	SW846 6010C
POTASSIUM, DISSOLVED	1.4	6SW846 010C
SODIUM, TOTAL	17.3	SW846 6010C
SODIUM, DISSOLVED	17.5	SW 846 6010C
SPEC. COND., FIELD (umhos/cm)	406	FIELD
SPEC. COND., LAB (umhos/cm)	281	EPA 120.1
SULFATE	6.8	EPA 300
ALKALINITY	28	SM20 2320B
TDS (TOTAL DISSOLVED SOLIDS)	190	SM20 2540C
TOC (TOTAL ORGANIC CARBON)	0.65	SM20 5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	2.7	SM 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	100008
Monitoring Point No.	CWMP004W
Sample Date	4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
cis 1,2-DICHLOROETHENE	1 ND	SW846 8260B
trans 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP004W
Sample Date	4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010C
ARSENIC, DISSOLVED	3 ND	SW846 6010C
BARIUM, TOTAL	26	SW846 6010C
BARIUM, DISSOLVED	26	SW846 6010C
CADMIUM, TOTAL	1.1 ND	SW846 6010C
CADMIUM, DISSOLVED	1.1 ND	SW846 6010C
CHROMIUM, TOTAL	2.2 ND	SW846 6010C
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010C
COPPER, TOTAL	5.6 ND	SW846 6010C
COPPER, DISSOLVED	5.6 ND	SW846 6010C
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010C
LEAD, DISSOLVED	2.2 ND	SW846 6010C
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010C
SELENIUM, DISSOLVED	5.6 ND	SW846 6010C
SILVER, TOTAL	2.2 ND	SW846 6010C
SILVER, DISSOLVED	2.2 ND	SW846 6010C
ZINC, TOTAL	5.6 ND	SW846 6010C
ZINC, DISSOLVED	5.6 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP004W
Sample Date	4/18/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE (CHLORODIBROMOMET	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
cis 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
trans 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE (MIBK)	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP004W
Sample Date	4/18/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE) CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE (DBCP) (DIBROMO	7 ND	SW846 8260B
trans 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	EPA 200.8
BERYLLIUM	1.1 ND	EPA 200.8
COBALT	5.6 ND	SW846 6010C
NICKEL	5.6 ND	SW846 6010C
THALLIUM	1.1 ND	EPA 200.8
VANADIUM	2.2 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP004W
Sample Date	4/18/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
05/22/2024
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, 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: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Creswell Landfill

Facitlity ID (as issued by DEP): 100008

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: CWMP003W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point — Latitude: 39 ° 57 ' 20.17 " — Longitude: 76 ° 26 ' 8.37 "

Depth to Water Level: 66.11 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: -1.29 ft — Elevation of Water Level: 458.10 ft./MSL

Sampling Depth: 100 ft — Volume of Water Column: 13.06 gal

Total Well Depth: 75 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 1.1

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 4/19/2024 — Sample Collection Time: 10:19

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3355968001 — Final Lab Analysis CompletionDate: 5/1/2024

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 100008
Monitoring Point No. CWMP003W
Sample Date 4/19/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	ASTM D6919-09
BICARBONATE	21	SM20 2321
CALCIUM, TOTAL	20.9	SW846 6010C
CALCIUM, DISSOLVED	21.1	SW846 6010C
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	78.8	EPA 300
FLUORIDE	0.5 ND	EPA 300
IRON, TOTAL (ug/l)	56 ND	SW846 6010C
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010C
MAGNESIUM, TOTAL	8.1	SW846 6010C
MAGNESIUM, DISSOLVED	8.7	SW846 6010C
MANGANESE, TOTAL (ug/l)	7.4	SW846 6010C
MANGANESE, DISSOLVED (ug/l)	5.6 ND	SW846 6010C
NITRATE-NITROGEN	5.6	EPA 300
pH-FIELD (SU)	5.26	FIELD
pH-LAB (SU)	6.9	SM4500B
POTASSIUM, TOTAL	1.6	SW846 6010C
POTASSIUM, DISSOLVED	1.7	6SW846 010C
SODIUM, TOTAL	23	SW846 6010C
SODIUM, DISSOLVED	23.5	SW 846 6010C
SPEC. COND., FIELD (umhos/cm)	480	FIELD
SPEC. COND., LAB (umhos/cm)	340	EPA 120.1
SULFATE	8.2	EPA 300
ALKALINITY	21	SM20 2320B
TDS (TOTAL DISSOLVED SOLIDS)	242	SM20 2540C
TOC (TOTAL ORGANIC CARBON)	0.59	SM20 5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	1	SM 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	100008
Monitoring Point No.	CWMP003W
Sample Date	4/19/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1.6	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
cis 1,2-DICHLOROETHENE	1 ND	SW846 8260B
trans 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP003W
Sample Date	4/19/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010C
ARSENIC, DISSOLVED	3 ND	SW846 6010C
BARIUM, TOTAL	18	SW846 6010C
BARIUM, DISSOLVED	19	SW846 6010C
CADMIUM, TOTAL	1.1 ND	SW846 6010C
CADMIUM, DISSOLVED	1.1 ND	SW846 6010C
CHROMIUM, TOTAL	2.2 ND	SW846 6010C
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010C
COPPER, TOTAL	5.6 ND	SW846 6010C
COPPER, DISSOLVED	5.6 ND	SW846 6010C
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010C
LEAD, DISSOLVED	2.2 ND	SW846 6010C
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010C
SELENIUM, DISSOLVED	5.6 ND	SW846 6010C
SILVER, TOTAL	2.2 ND	SW846 6010C
SILVER, DISSOLVED	2.2 ND	SW846 6010C
ZINC, TOTAL	5.6 ND	SW846 6010C
ZINC, DISSOLVED	5.8	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP003W
Sample Date	4/19/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE (CHLORODIBROMOMET	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
cis 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
trans 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE (MIBK)	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP003W
Sample Date	4/19/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE) CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE (DBCP) (DIBROMO	7 ND	SW846 8260B
trans 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	EPA 200.8
BERYLLIUM	1.1 ND	EPA 200.8
COBALT	5.6 ND	SW846 6010C
NICKEL	9.1	SW846 6010C
THALLIUM	1.1 ND	EPA 200.8
VANADIUM	2.2 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP003W
Sample Date	4/19/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
05/22/2024
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, 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: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Creswell Landfill

Facitlity ID (as issued by DEP): 100008

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: CWMP012W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point — Latitude: 39 ° 57 ' 1.48 " — Longitude: 76 ° 26 ' 36.02 "

Depth to Water Level: 64.56 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 1.90 ft — Elevation of Water Level: 318.14 ft./MSL

Sampling Depth: 0 ft — Volume of Water Column: 54.84 gal

Total Well Depth: 101.9 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: ___

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 4/23/2024 — Sample Collection Time: 10:02

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3356323001 — Final Lab Analysis CompletionDate: 5/6/2024

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 100008
Monitoring Point No. CWMP012W
Sample Date 4/23/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	ASTM D6919-09
BICARBONATE	78	SM20 2321
CALCIUM, TOTAL	29.2	SW846 6010C
CALCIUM, DISSOLVED	29	SW846 6010C
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	33.6	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	1800	SW846 6010C
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010C
MAGNESIUM, TOTAL	9	SW846 6010C
MAGNESIUM, DISSOLVED	8.5	SW846 6010C
MANGANESE, TOTAL (ug/l)	410	SW846 6010C
MANGANESE, DISSOLVED (ug/l)	370	SW846 6010C
NITRATE-NITROGEN	6.6	EPA 300
pH-FIELD (SU)	5.91	FIELD
pH-LAB (SU)	7.41	SM4500B
POTASSIUM, TOTAL	1.4	SW846 6010C
POTASSIUM, DISSOLVED	1.4	6SW846 010C
SODIUM, TOTAL	13.9	SW846 6010C
SODIUM, DISSOLVED	14.6	SW 846 6010C
SPEC. COND., FIELD (umhos/cm)	464	FIELD
SPEC. COND., LAB (umhos/cm)	312	EPA 120.1
SULFATE	5.1	EPA 300
ALKALINITY	78	SM20 2320B
TDS (TOTAL DISSOLVED SOLIDS)	228	SM20 2540C
TOC (TOTAL ORGANIC CARBON)	1.9	SM20 5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	70	SM 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	100008
Monitoring Point No.	CWMP012W
Sample Date	4/23/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	1 ND	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
cis 1,2-DICHLOROETHENE	1 ND	SW846 8260B
trans 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP012W
Sample Date	4/23/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010C
ARSENIC, DISSOLVED	3 ND	SW846 6010C
BARIUM, TOTAL	82	SW846 6010C
BARIUM, DISSOLVED	89	SW846 6010C
CADMIUM, TOTAL	1.1 ND	SW846 6010C
CADMIUM, DISSOLVED	1.1 ND	SW846 6010C
CHROMIUM, TOTAL	2.2 ND	SW846 6010C
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010C
COPPER, TOTAL	5.6 ND	SW846 6010C
COPPER, DISSOLVED	5.6 ND	SW846 6010C
LEAD-FLAMELESS, TOTAL	3.1	SW846 6010C
LEAD, DISSOLVED	2.2 ND	SW846 6010C
MERCURY, TOTAL	0.5 ND	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010C
SELENIUM, DISSOLVED	5.6 ND	SW846 6010C
SILVER, TOTAL	2.2 ND	SW846 6010C
SILVER, DISSOLVED	2.2 ND	SW846 6010C
ZINC, TOTAL	6.2	SW846 6010C
ZINC, DISSOLVED	10	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP012W
Sample Date	4/23/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1 ND	SW846 8260B
CHLOROETHANE	1 ND	SW846 8260B
DIBROMOCHLOROMETHANE (CHLORODIBROMOMET	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1 ND	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
cis 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
trans 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE (MIBK)	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP012W
Sample Date	4/23/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE) CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE (DBCP) (DIBROMO	7 ND	SW846 8260B
trans 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	EPA 200.8
BERYLLIUM	1.1 ND	EPA 200.8
COBALT	5.6 ND	SW846 6010C
NICKEL	12	SW846 6010C
THALLIUM	1.1 ND	EPA 200.8
VANADIUM	2.2 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP012W
Sample Date	4/23/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

2540-FM-BWM0041 Rev. 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
05/22/2024
DEP USE ONLY
Date Received

FORM 19

MUNICIPAL WASTE LANDFILL
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, 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: Section 273.284
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. APPLICANT IDENTIFIER

Applicant/permittee: Lancaster County Solid Waste Mana

Site Name: Creswell Landfill

Facitlity ID (as issued by DEP): 100008

SECTION B. FACILITY INFORMATION

Monitoring Wells must be designed and constructed in accordance with Department Standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (D° MM' SS.S")

Monitoring Point Number: CWMP002W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: Manor Township

Sampling Point — Latitude: 39 ° 57 ' 19.97 " — Longitude: 76 ° 26 ' 12.3 "

Depth to Water Level: 44.18 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: -1.19 ft — Elevation of Water Level: 481.63 ft./MSL

Sampling Depth: 85 ft — Volume of Water Column: 81.98 gal

Total Well Depth: 100 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 1.0

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 4/23/2024 — Sample Collection Time: 12:53

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis:

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

Lab Accreditation Number(s):

Lab Sample Number(s): 3356323002 — Final Lab Analysis CompletionDate: 5/6/2024

Name/Affiliation of Person who Filled Out Form: Daniel A. Brown

Comments:

I.D. No 100008
Monitoring Point No. CWMP002W
Sample Date 4/23/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

ANALYTES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
AMMONIA-NITROGEN	0.1 ND	ASTM D6919-09
BICARBONATE	307	SM20 2321
CALCIUM, TOTAL	48.6	SW846 6010C
CALCIUM, DISSOLVED	47.9	SW846 6010C
COD (CHEMICAL OXYGEN DEMAND)	15 ND	EPA 410.4
CHLORIDE	112	EPA 300
FLUORIDE	0.2 ND	EPA 300
IRON, TOTAL (ug/l)	56 ND	SW846 6010C
IRON, DISSOLVED (ug/l)	56 ND	SW846 6010C
MAGNESIUM, TOTAL	18.2	SW846 6010C
MAGNESIUM, DISSOLVED	18.1	SW846 6010C
MANGANESE, TOTAL (ug/l)	830	SW846 6010C
MANGANESE, DISSOLVED (ug/l)	830	SW846 6010C
NITRATE-NITROGEN	5.3	EPA 300
pH-FIELD (SU)	5.69	FIELD
pH-LAB (SU)	7.77	SM4500B
POTASSIUM, TOTAL	2.8	SW846 6010C
POTASSIUM, DISSOLVED	2.9	6SW846 010C
SODIUM, TOTAL	29.8	SW846 6010C
SODIUM, DISSOLVED	30.9	SW 846 6010C
SPEC. COND., FIELD (umhos/cm)	852	FIELD
SPEC. COND., LAB (umhos/cm)	606	EPA 120.1
SULFATE	22.3	EPA 300
ALKALINITY	307	SM20 2320B
TDS (TOTAL DISSOLVED SOLIDS)	474	SM20 2540C
TOC (TOTAL ORGANIC CARBON)	4.2	SM20 5310B
TOTAL PHENOLICS (ug/l)	4 ND	SW846 9066
TURBIDITY (N.T.U.)	0.7	SM 2130B

* Indicator Analyte - For comparison with detection zone analytes.
T Please indicate detection limit if analyte is not detected.
** Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No	100008
Monitoring Point No.	CWMP002W
Sample Date	4/23/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BENZENE	1 ND	SW846 8260B
1,2-DIBROMOETHANE (EDB) (ETHYLENE D	1 ND	SW846 8260B
1,1-DICHLOROETHANE	8.9	SW846 8260B
1,1-DICHLOROETHENE	1 ND	SW846 8260B
1,2-DICHLOROETHANE	1 ND	SW846 8260B
cis 1,2-DICHLOROETHENE	1 ND	SW846 8260B
trans 1,2-DICHLOROETHENE	1 ND	SW846 8260B
ETHYLBENZENE	1 ND	SW846 8260B
METHYLENE CHLORIDE	1 ND	SW846 8260B
TETRACHLOROETHENE	1 ND	SW846 8260B
TOLUENE	1 ND	SW846 8260B
1,1,1-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROETHENE	1 ND	SW846 8260B
VINYL CHLORIDE	1 ND	SW846 8260B
XYLENES (TOTAL)	3 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP002W
Sample Date	4/23/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

1-A. Metals (Enter all data in ug/l) If initial background analyses of four consecutive analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ARSENIC, TOTAL	3.3 ND	SW846 6010C
ARSENIC, DISSOLVED	3 ND	SW846 6010C
BARIUM, TOTAL	52	SW846 6010C
BARIUM, DISSOLVED	53	SW846 6010C
CADMIUM, TOTAL	1.1 ND	SW846 6010C
CADMIUM, DISSOLVED	1.1 ND	SW846 6010C
CHROMIUM, TOTAL	2.2 ND	SW846 6010C
CHROMIUM, DISSOLVED	2.2 ND	SW846 6010C
COPPER, TOTAL	5.6 ND	SW846 6010C
COPPER, DISSOLVED	5.6 ND	SW846 6010C
LEAD-FLAMELESS, TOTAL	2.2 ND	SW846 6010C
LEAD, DISSOLVED	2.2 ND	SW846 6010C
MERCURY, TOTAL	0.6	SW846 7470A
MERCURY, DISSOLVED	0.5 ND	SW846 7470A
SELENIUM, TOTAL	5.6 ND	SW846 6010C
SELENIUM, DISSOLVED	5.6 ND	SW846 6010C
SILVER, TOTAL	2.2 ND	SW846 6010C
SILVER, DISSOLVED	2.2 ND	SW846 6010C
ZINC, TOTAL	7.5	SW846 6010C
ZINC, DISSOLVED	7.4	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP002W
Sample Date	4/23/2024

FORM 19

QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
BROMOFORM	1 ND	SW846 8260B
BROMOMETHANE	1 ND	SW846 8260B
CARBON TETRACHLORIDE	1 ND	SW846 8260B
CHLOROBENZENE	1.2	SW846 8260B
CHLOROETHANE	14.4	SW846 8260B
DIBROMOCHLOROMETHANE (CHLORODIBROMOMET	1 ND	SW846 8260B
CHLOROMETHANE	1 ND	SW846 8260B
3-CHLORO-1-PROPENE	1 ND	SW846 8260B
1,2-DICHLOROBENZENE	1 ND	SW846 8260B
1,3-DICHLOROBENZENE	1 ND	SW846 8260B
1,4-DICHLOROBENZENE	1.4	SW846 8260B
DICHLORODIFLUOROMETHANE	1 ND	SW846 8260B
1,2-DICHLOROPROPANE	1 ND	SW846 8260B
cis 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
trans 1,3-DICHLOROPROPENE	1 ND	SW846 8260B
2-BUTANONE (MEK)	10 ND	SW846 8260B
4-METHYL-2-PENTANONE (MIBK)	5 ND	SW846 8260B
1,1,1,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2,2-TETRACHLOROETHANE	1 ND	SW846 8260B
1,1,2-TRICHLOROETHANE	1 ND	SW846 8260B
TRICHLOROFLUOROMETHANE	1 ND	SW846 8260B
1,2,3-TRICHLOROPROPANE	2 ND	SW846 8260B

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP002W
Sample Date	4/23/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

SUBTITLE D - Detection Zone Add-On LIst - When the MCL of any VOC is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the groundwater monitoring wells.

ORGANICS AND METALS (Enter all data in ug/l)

ANALYTE	VALUE[T]	ANALYSIS METHOD NUMBER
ACETONE	10 ND	SW846 8260B
ACRYLONITRILE	5 ND	SW846 8260B
BROMOCHLOROMETHANE) CHLOROBROMOMETHAN	1 ND	SW846 8260B
BROMODICHLOROMETHANE	1 ND	SW846 8260B
CARBON DISULFIDE	1 ND	SW846 8260B
CHLOROFORM	1 ND	SW846 8260B
1,2-DIBROMO-3-CHLOROPROPANE (DBCP) (DIBROMO	7 ND	SW846 8260B
trans 1,4-DICHLORO-2-BUTENE	3 ND	SW846 8260B
2-HEXANONE	5 ND	SW846 8260B
DIBROMOMETHANE	1 ND	SW846 8260B
IODOMETHANE	1 ND	SW846 8260B
STYRENE	1 ND	SW846 8260B
VINYL ACETATE	5 ND	SW846 8260B
ANTIMONY	2.2 ND	EPA 200.8
BERYLLIUM	1.1 ND	EPA 200.8
COBALT	11	SW846 6010C
NICKEL	30	SW846 6010C
THALLIUM	1.1 ND	EPA 200.8
VANADIUM	2.2 ND	SW846 6010C

T Please indicate detection limit if analyte is not detected.

I.D. No	100008
Monitoring Point No.	CWMP002W
Sample Date	4/23/2024

FORM 19

ANNUAL WATER QUALITY ANALYSES

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number

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 2nd QTR 2024 GWMP FORM 19A
Workorder 3355103
Report ID 319319 on 4/30/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Apr 15, 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
3355103001	CWMP007W	Ground Water	04/15/2024 10:41	04/15/2024 15:32	BGS	Analytical Laboratory Service
3355103002	CWMP001W	Ground Water	04/15/2024 11:43	04/15/2024 15:32	BGS	Analytical Laboratory Service
3355103003	CWMP005W	Ground Water	04/15/2024 12:43	04/15/2024 15:32	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.	
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.
4	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
5	The QC sample type MSD for method EPA 300.0 was outside the control limits for the analyte Fluoride. The % Recovery was reported as 126 and the control limits were 80 to 120.
6	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	CWMP007W	Collected	04/15/2024 10:41
Lab Sample ID	3355103001	Lab Receipt	04/15/2024 15:32

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	6.18	Feet		Field	#
Dissolved Oxygen	5.06	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	453.40	Feet		Field	#
Flow Rate	1.71	gal/min		Field	#
Ground Water Elevation	447.22	ft/MSL		Field	#
Oxidation-Reduction Potential	308	mV		Field	#
pH, Field (SM4500B)	5.17	pH_Units		Field	#
Sample Depth	33.00	Feet		Field	#
Specific Conductance, Field	578	umhos/cm	1	Field	#
Temperature	13.00	Deg. C		Field	#
Total Well Depth	36.50	Feet		Field	#
Volume in Water Column	44.57	Gallons		Field	#
Water Level After Purge	6.93	Feet		Field	#
Well Volumes Purged	2.30	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.051	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.053	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	18.4	mg/L	0.11	SW846 6020A	#
Calcium, Total	17.7	mg/L	0.11	SW846 6020A	#
Magnesium, Dissolved	9.8	mg/L	0.11	SW846 6020A	#
Magnesium, Total	9.9	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.0078	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.0071	mg/L	0.0056	SW846 6020A	#
Nickel, Total	0.0061	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	2.2	mg/L	0.11	SW846 6020A	#
Potassium, Total	2.2	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	34.2	mg/L	0.11	SW846 6020A	#
Sodium, Total	34.5	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.0060	mg/L	0.0056	SW846 6020A	#
Zinc, Total	0.0062	mg/L	0.0056	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	14	mg/L	5	SM2320B-2011	#
Alkalinity, Total	14	mg/L	5	SM2320B-2011	#
Chloride	79.8	mg/L	2.0	EPA 300.0	#
Nitrate-N	10	mg/L	1.0	EPA 300.0	#
pH	6.93	pH_Units		S4500HB-11	#
Specific Conductance	396	umhos/cm	5	SM2510B-2011	#
Sulfate	17.9	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	242	mg/L	25	SM2540C-15	#

Detected Results Summary

Client Sample ID	CWMP001W	Collected	04/15/2024 11:43
Lab Sample ID	3355103002	Lab Receipt	04/15/2024 15:32

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	25.79	Feet		Field	#
Dissolved Oxygen	8.53	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	515.13	Feet		Field	#
Flow Rate	1.64	gal/min		Field	#
Ground Water Elevation	489.34	ft/MSL		Field	#
Oxidation-Reduction Potential	329	mV		Field	#
pH, Field (SM4500B)	4.88	pH_Units		Field	#
Sample Depth	57.00	Feet		Field	#
Specific Conductance, Field	362	umhos/cm	1	Field	#
Temperature	14.06	Deg. C		Field	#
Total Well Depth	66.30	Feet		Field	#
Turbidity, Field	104	NTU	1	Field	#
Volume in Water Column	59.55	Gallons		Field	#
Water Level After Purge	50.62	Feet		Field	#
Well Volumes Purged	3.17	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.073	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.083	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	13.5	mg/L	0.11	SW846 6020A	#
Calcium, Total	14.0	mg/L	0.11	SW846 6020A	#
Copper, Total	0.0058	mg/L	0.0056	SW846 6020A	#
Iron, Total	2.8	mg/L	0.056	SW846 6020A	#
Lead, Total	0.0076	mg/L	0.0022	SW846 6020A	#
Magnesium, Dissolved	9.4	mg/L	0.11	SW846 6020A	#
Magnesium, Total	10.1	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.059	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.092	mg/L	0.0056	SW846 6020A	#
Nickel, Total	0.0074	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	2.1	mg/L	0.11	SW846 6020A	#
Potassium, Total	2.3	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	13.2	mg/L	0.11	SW846 6020A	#
Sodium, Total	13.6	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.016	mg/L	0.0056	SW846 6020A	#
Zinc, Total	0.025	mg/L	0.0056	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	8	mg/L	5	SM2320B-2011	#
Alkalinity, Total	8	mg/L	5	SM2320B-2011	#
Chloride	27.8	mg/L	2.0	EPA 300.0	#
Nitrate-N	18.1	mg/L	1.0	EPA 300.0	#
pH	6.76	pH_Units		S4500HB-11	#
Specific Conductance	260	umhos/cm	5	SM2510B-2011	#
Sulfate	2.9	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	182	mg/L	25	SM2540C-15	#

Detected Results Summary

Sample - CWMP001W (cont.)

Compound	Result	Units	RDL	Method	Flag
WET CHEMISTRY (cont.)					
Turbidity	70	NTU	0.30	SM2130B-2011	#

Detected Results Summary

Client Sample ID	CWMP005W	Collected	04/15/2024 12:43
Lab Sample ID	3355103003	Lab Receipt	04/15/2024 15:32

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	37.99	Feet		Field	#
Dissolved Oxygen	6.80	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	513.43	Feet		Field	#
Flow Rate	2.46	gal/min		Field	#
Ground Water Elevation	475.44	ft/MSL		Field	#
Oxidation-Reduction Potential	264	mV		Field	#
pH, Field (SM4500B)	5.32	pH_Units		Field	#
Sample Depth	130.00	Feet		Field	#
Specific Conductance, Field	551	umhos/cm	1	Field	#
Temperature	13.16	Deg. C		Field	#
Total Well Depth	138.92	Feet		Field	#
Volume in Water Column	148.37	Gallons		Field	#
Water Level After Purge	39.84	Feet		Field	#
Well Volumes Purged	1.00	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.054	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.053	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	15.9	mg/L	0.11	SW846 6020A	#
Calcium, Total	15.7	mg/L	0.11	SW846 6020A	#
Magnesium, Dissolved	8.5	mg/L	0.11	SW846 6020A	#
Magnesium, Total	8.5	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.052	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.054	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	2.2	mg/L	0.11	SW846 6020A	#
Potassium, Total	2.2	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	35.7	mg/L	0.11	SW846 6020A	#
Sodium, Total	36.2	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.0091	mg/L	0.0056	SW846 6020A	#
Zinc, Total	0.0091	mg/L	0.0056	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	16	mg/L	5	SM2320B-2011	#
Alkalinity, Total	16	mg/L	5	SM2320B-2011	#
Chloride	83.8	mg/L	2.0	EPA 300.0	#
Nitrate-N	8.7	mg/L	1.0	EPA 300.0	#
pH	7.09	pH_Units		S4500HB-11	#
Specific Conductance	377	umhos/cm	5	SM2510B-2011	#
Sulfate	5.0	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	240	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	0.89	mg/L	0.50	SM5310B-14	#
Turbidity	0.45	NTU	0.30	SM2130B-2011	#

Results

Client Sample ID	CWMP007W	Collected	04/15/2024 10:41
Lab Sample ID	3355103001	Lab Receipt	04/15/2024 15:32

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	6.18		Feet		Field	1	04/15/2024 10:41	BGS	F
Dissolved Oxygen	5.06		mg/L	0.01	Field	1	04/15/2024 10:41	BGS	F
Elev Top MW Casing above MSL	453.40		Feet		Field	1	04/15/2024 10:41	BGS	F
Flow Rate	1.71		gal/min		Field	1	04/15/2024 10:41	BGS	F
Ground Water Elevation	447.22		ft/MSL		Field	1	04/15/2024 10:41	BGS	F
Oxidation-Reduction Potential	308		mV		Field	1	04/15/2024 10:41	BGS	F
pH, Field (SM4500B)	5.17		pH_Units		Field	1	04/15/2024 10:41	BGS	F
Sample Depth	33.00		Feet		Field	1	04/15/2024 10:41	BGS	F
Specific Conductance, Field	578		umhos/cm	1	Field	1	04/15/2024 10:41	BGS	F
Temperature	13.00		Deg. C		Field	1	04/15/2024 10:41	BGS	F
Total Well Depth	36.50		Feet		Field	1	04/15/2024 10:41	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	04/15/2024 10:41	BGS	F
Volume in Water Column	44.57		Gallons		Field	1	04/15/2024 10:41	BGS	F
Water Level After Purge	6.93		Feet		Field	1	04/15/2024 10:41	BGS	F
Well Volumes Purged	2.30		Vol		Field	1	04/15/2024 10:41	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	04/18/2024 02:45	CHS	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 17:33	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/23/2024 18:40	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	04/23/2024 17:33	MO	E1
Barium, Dissolved	0.051		mg/L	0.0056	SW846 6020A	1	04/23/2024 18:40	MO	D1
Barium, Total	0.053		mg/L	0.0056	SW846 6020A	1	04/23/2024 17:33	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/23/2024 17:33	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/23/2024 18:40	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/23/2024 17:33	MO	E1
Calcium, Dissolved	18.4		mg/L	0.11	SW846 6020A	1	04/23/2024 18:40	MO	D1
Calcium, Total	17.7		mg/L	0.11	SW846 6020A	1	04/23/2024 17:33	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 18:40	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 17:33	MO	E1
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/23/2024 17:33	MO	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/23/2024 18:40	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/23/2024 17:33	MO	E1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/23/2024 18:40	MO	D1
Iron, Total	ND	ND	mg/L	0.056	SW846 6020A	1	04/23/2024 17:33	MO	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 18:40	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 17:33	MO	E1
Magnesium, Dissolved	9.8		mg/L	0.11	SW846 6020A	1	04/23/2024 18:40	MO	D1
Magnesium, Total	9.9		mg/L	0.11	SW846 6020A	1	04/23/2024 17:33	MO	E1
Manganese, Dissolved	0.0078		mg/L	0.0056	SW846 6020A	1	04/23/2024 18:40	MO	D1

Results

Client Sample ID	CWMP007W	Collected	04/15/2024 10:41
Lab Sample ID	3355103001	Lab Receipt	04/15/2024 15:32

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.0071		mg/L	0.0056	SW846 6020A	1	04/23/2024 17:33	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/19/2024 15:08	JSE	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	04/19/2024 15:38	JSE	E
Nickel, Total	0.0061		mg/L	0.0056	SW846 6020A	1	04/23/2024 17:33	MO	E1
Potassium, Dissolved	2.2		mg/L	0.11	SW846 6020A	1	04/23/2024 18:40	MO	D1
Potassium, Total	2.2		mg/L	0.11	SW846 6020A	1	04/23/2024 17:33	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/23/2024 18:40	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/23/2024 17:33	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 18:40	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 17:33	MO	E1
Sodium, Dissolved	34.2		mg/L	0.11	SW846 6020A	1	04/23/2024 18:40	MO	D1
Sodium, Total	34.5	3	mg/L	0.11	SW846 6020A	1	04/23/2024 17:33	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/23/2024 17:33	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 17:33	MO	E1
Zinc, Dissolved	0.0060		mg/L	0.0056	SW846 6020A	1	04/23/2024 18:40	MO	D1
Zinc, Total	0.0062		mg/L	0.0056	SW846 6020A	1	04/23/2024 17:33	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J

Results

Client Sample ID	CWMP007W	Collected	04/15/2024 10:41
Lab Sample ID	3355103001	Lab Receipt	04/15/2024 15:32

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	04/18/2024 02:45	PDK	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 02:45	PDK	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	105%	62 – 133	04/18/2024 02:45	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	04/18/2024 02:45	
Dibromofluoromethane	1868-53-7	98.2%	78 – 116	04/18/2024 02:45	
Toluene-d8	2037-26-5	97.8%	76 – 127	04/18/2024 02:45	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	14		mg/L	5	SM2320B-2011	1	04/17/2024 05:30	KMV	A
Alkalinity, Total	14	4	mg/L	5	SM2320B-2011	1	04/17/2024 05:30	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	04/24/2024 13:46	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	04/17/2024 11:55	KMS	C
Chloride	79.8		mg/L	2.0	EPA 300.0	2	04/16/2024 11:55	J1W	A
Fluoride	ND	ND,5	mg/L	0.20	EPA 300.0	2	04/19/2024 09:22	J1W	A
Nitrate-N	10		mg/L	1.0	EPA 300.0	2	04/16/2024 11:55	J1W	A
pH	6.93	6	pH_Units		S4500HB-11	1	04/17/2024 05:30	KMV	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	04/29/2024 11:08	AKH	I
Specific Conductance	396		umhos/cm	5	SM2510B-2011	1	04/18/2024 20:47	LMD	A
Sulfate	17.9		mg/L	2.0	EPA 300.0	2	04/16/2024 11:55	J1W	A

Results

Client Sample ID	CWMP007W	Collected	04/15/2024 10:41
Lab Sample ID	3355103001	Lab Receipt	04/15/2024 15:32

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	242		mg/L	25	SM2540C-15	1	04/18/2024 16:00	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	04/19/2024 02:42	PAG	G
Turbidity	ND	ND	NTU	0.30	SM2130B-2011	1	04/16/2024 10:04	NPF	A

Results

Client Sample ID	CWMP001W	Collected	04/15/2024 11:43
Lab Sample ID	3355103002	Lab Receipt	04/15/2024 15:32

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	25.79		Feet		Field	1	04/15/2024 11:48	BGS	F
Dissolved Oxygen	8.53		mg/L	0.01	Field	1	04/15/2024 11:48	BGS	F
Elev Top MW Casing above MSL	515.13		Feet		Field	1	04/15/2024 11:48	BGS	F
Flow Rate	1.64		gal/min		Field	1	04/15/2024 11:48	BGS	F
Ground Water Elevation	489.34		ft/MSL		Field	1	04/15/2024 11:48	BGS	F
Oxidation-Reduction Potential	329		mV		Field	1	04/15/2024 11:48	BGS	F
pH, Field (SM4500B)	4.88		pH_Units		Field	1	04/15/2024 11:48	BGS	F
Sample Depth	57.00		Feet		Field	1	04/15/2024 11:48	BGS	F
Specific Conductance, Field	362		umhos/cm	1	Field	1	04/15/2024 11:48	BGS	F
Temperature	14.06		Deg. C		Field	1	04/15/2024 11:48	BGS	F
Total Well Depth	66.30		Feet		Field	1	04/15/2024 11:48	BGS	F
Turbidity, Field	104		NTU	1	Field	1	04/15/2024 11:48	BGS	F
Volume in Water Column	59.55		Gallons		Field	1	04/15/2024 11:48	BGS	F
Water Level After Purge	50.62		Feet		Field	1	04/15/2024 11:48	BGS	F
Well Volumes Purged	3.17		Vol		Field	1	04/15/2024 11:48	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	04/18/2024 03:05	CHS	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 17:39	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/23/2024 18:42	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	04/23/2024 17:39	MO	E1
Barium, Dissolved	0.073		mg/L	0.0056	SW846 6020A	1	04/23/2024 18:42	MO	D1
Barium, Total	0.083		mg/L	0.0056	SW846 6020A	1	04/23/2024 17:39	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/23/2024 17:39	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/23/2024 18:42	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/23/2024 17:39	MO	E1
Calcium, Dissolved	13.5	3	mg/L	0.11	SW846 6020A	1	04/23/2024 18:42	MO	D1
Calcium, Total	14.0		mg/L	0.11	SW846 6020A	1	04/23/2024 17:39	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 18:42	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 17:39	MO	E1
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/23/2024 17:39	MO	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/23/2024 18:42	MO	D1
Copper, Total	0.0058		mg/L	0.0056	SW846 6020A	1	04/23/2024 17:39	MO	E1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/23/2024 18:42	MO	D1
Iron, Total	2.8		mg/L	0.056	SW846 6020A	1	04/23/2024 17:39	MO	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 18:42	MO	D1
Lead, Total	0.0076		mg/L	0.0022	SW846 6020A	1	04/23/2024 17:39	MO	E1
Magnesium, Dissolved	9.4	3	mg/L	0.11	SW846 6020A	1	04/23/2024 18:42	MO	D1
Magnesium, Total	10.1		mg/L	0.11	SW846 6020A	1	04/23/2024 17:39	MO	E1
Manganese, Dissolved	0.059		mg/L	0.0056	SW846 6020A	1	04/23/2024 18:42	MO	D1

Results

Client Sample ID	CWMP001W	Collected	04/15/2024 11:43
Lab Sample ID	3355103002	Lab Receipt	04/15/2024 15:32

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.092		mg/L	0.0056	SW846 6020A	1	04/23/2024 17:39	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/19/2024 15:09	JSE	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	04/19/2024 15:39	JSE	E
Nickel, Total	0.0074		mg/L	0.0056	SW846 6020A	1	04/23/2024 17:39	MO	E1
Potassium, Dissolved	2.1		mg/L	0.11	SW846 6020A	1	04/23/2024 18:42	MO	D1
Potassium, Total	2.3		mg/L	0.11	SW846 6020A	1	04/23/2024 17:39	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/23/2024 18:42	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/23/2024 17:39	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 18:42	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 17:39	MO	E1
Sodium, Dissolved	13.2	3	mg/L	0.11	SW846 6020A	1	04/23/2024 18:42	MO	D1
Sodium, Total	13.6		mg/L	0.11	SW846 6020A	1	04/23/2024 17:39	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/23/2024 17:39	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 17:39	MO	E1
Zinc, Dissolved	0.016		mg/L	0.0056	SW846 6020A	1	04/23/2024 18:42	MO	D1
Zinc, Total	0.025		mg/L	0.0056	SW846 6020A	1	04/23/2024 17:39	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J

Results

Client Sample ID	CWMP001W	Collected	04/15/2024 11:43
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VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	04/18/2024 03:05	PDK	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:05	PDK	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	109%	62 – 133	04/18/2024 03:05	
4-Bromofluorobenzene	460-00-4	90.5%	79 – 114	04/18/2024 03:05	
Dibromofluoromethane	1868-53-7	98.8%	78 – 116	04/18/2024 03:05	
Toluene-d8	2037-26-5	94.8%	76 – 127	04/18/2024 03:05	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	8		mg/L	5	SM2320B-2011	1	04/17/2024 05:42	KMV	A
Alkalinity, Total	8	4	mg/L	5	SM2320B-2011	1	04/17/2024 05:42	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	04/24/2024 13:43	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	04/17/2024 11:55	KMS	C
Chloride	27.8		mg/L	2.0	EPA 300.0	2	04/16/2024 12:05	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	04/19/2024 10:19	J1W	A
Nitrate-N	18.1		mg/L	1.0	EPA 300.0	2	04/16/2024 12:05	J1W	A
pH	6.76	6	pH_Units		S4500HB-11	1	04/17/2024 05:42	KMV	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	04/29/2024 11:05	AKH	I
Specific Conductance	260		umhos/cm	5	SM2510B-2011	1	04/18/2024 20:47	LMD	A
Sulfate	2.9		mg/L	2.0	EPA 300.0	2	04/16/2024 12:05	J1W	A

Results

Client Sample ID	CWMP001W	Collected	04/15/2024 11:43
Lab Sample ID	3355103002	Lab Receipt	04/15/2024 15:32

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	182		mg/L	25	SM2540C-15	1	04/18/2024 16:00	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	04/19/2024 02:42	PAG	G
Turbidity	70		NTU	0.30	SM2130B-2011	1	04/16/2024 10:04	NPF	A

Results

Client Sample ID	CWMP005W	Collected	04/15/2024 12:43
Lab Sample ID	3355103003	Lab Receipt	04/15/2024 15:32

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	37.99		Feet		Field	1	04/15/2024 12:43	BGS	F
Dissolved Oxygen	6.80		mg/L	0.01	Field	1	04/15/2024 12:43	BGS	F
Elev Top MW Casing above MSL	513.43		Feet		Field	1	04/15/2024 12:43	BGS	F
Flow Rate	2.46		gal/min		Field	1	04/15/2024 12:43	BGS	F
Ground Water Elevation	475.44		ft/MSL		Field	1	04/15/2024 12:43	BGS	F
Oxidation-Reduction Potential	264		mV		Field	1	04/15/2024 12:43	BGS	F
pH, Field (SM4500B)	5.32		pH_Units		Field	1	04/15/2024 12:43	BGS	F
Sample Depth	130.00		Feet		Field	1	04/15/2024 12:43	BGS	F
Specific Conductance, Field	551		umhos/cm	1	Field	1	04/15/2024 12:43	BGS	F
Temperature	13.16		Deg. C		Field	1	04/15/2024 12:43	BGS	F
Total Well Depth	138.92		Feet		Field	1	04/15/2024 12:43	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	04/15/2024 12:43	BGS	F
Volume in Water Column	148.37		Gallons		Field	1	04/15/2024 12:43	BGS	F
Water Level After Purge	39.84		Feet		Field	1	04/15/2024 12:43	BGS	F
Well Volumes Purged	1.00		Vol		Field	1	04/15/2024 12:43	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	04/18/2024 03:25	CHS	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 17:41	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/23/2024 18:49	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	04/23/2024 17:41	MO	E1
Barium, Dissolved	0.054		mg/L	0.0056	SW846 6020A	1	04/23/2024 18:49	MO	D1
Barium, Total	0.053		mg/L	0.0056	SW846 6020A	1	04/23/2024 17:41	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/23/2024 17:41	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/23/2024 18:49	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/23/2024 17:41	MO	E1
Calcium, Dissolved	15.9		mg/L	0.11	SW846 6020A	1	04/23/2024 18:49	MO	D1
Calcium, Total	15.7		mg/L	0.11	SW846 6020A	1	04/23/2024 17:41	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 18:49	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 17:41	MO	E1
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/23/2024 17:41	MO	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/23/2024 18:49	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/23/2024 17:41	MO	E1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/23/2024 18:49	MO	D1
Iron, Total	ND	ND	mg/L	0.056	SW846 6020A	1	04/23/2024 17:41	MO	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 18:49	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 17:41	MO	E1
Magnesium, Dissolved	8.5		mg/L	0.11	SW846 6020A	1	04/23/2024 18:49	MO	D1
Magnesium, Total	8.5		mg/L	0.11	SW846 6020A	1	04/23/2024 17:41	MO	E1
Manganese, Dissolved	0.052		mg/L	0.0056	SW846 6020A	1	04/23/2024 18:49	MO	D1

Results

Client Sample ID	CWMP005W	Collected	04/15/2024 12:43
Lab Sample ID	3355103003	Lab Receipt	04/15/2024 15:32

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.054		mg/L	0.0056	SW846 6020A	1	04/23/2024 17:41	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/19/2024 15:11	JSE	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	04/19/2024 15:43	JSE	E
Nickel, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/23/2024 17:41	MO	E1
Potassium, Dissolved	2.2		mg/L	0.11	SW846 6020A	1	04/23/2024 18:49	MO	D1
Potassium, Total	2.2		mg/L	0.11	SW846 6020A	1	04/23/2024 17:41	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/23/2024 18:49	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/23/2024 17:41	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 18:49	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 17:41	MO	E1
Sodium, Dissolved	35.7		mg/L	0.11	SW846 6020A	1	04/23/2024 18:49	MO	D1
Sodium, Total	36.2		mg/L	0.11	SW846 6020A	1	04/23/2024 17:41	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/23/2024 17:41	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/23/2024 17:41	MO	E1
Zinc, Dissolved	0.0091		mg/L	0.0056	SW846 6020A	1	04/23/2024 18:49	MO	D1
Zinc, Total	0.0091		mg/L	0.0056	SW846 6020A	1	04/23/2024 17:41	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J

Results

Client Sample ID	CWMP005W	Collected	04/15/2024 12:43
Lab Sample ID	3355103003	Lab Receipt	04/15/2024 15:32

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	04/18/2024 03:25	PDK	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/18/2024 03:25	PDK	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	106%	62 – 133	04/18/2024 03:25	
4-Bromofluorobenzene	460-00-4	100%	79 – 114	04/18/2024 03:25	
Dibromofluoromethane	1868-53-7	97.7%	78 – 116	04/18/2024 03:25	
Toluene-d8	2037-26-5	96.7%	76 – 127	04/18/2024 03:25	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	16		mg/L	5	SM2320B-2011	1	04/17/2024 05:55	KMV	A
Alkalinity, Total	16	4	mg/L	5	SM2320B-2011	1	04/17/2024 05:55	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	04/24/2024 13:37	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	04/17/2024 11:55	KMS	C
Chloride	83.8		mg/L	2.0	EPA 300.0	2	04/16/2024 12:15	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	04/19/2024 10:31	J1W	A
Nitrate-N	8.7		mg/L	1.0	EPA 300.0	2	04/16/2024 12:15	J1W	A
pH	7.09	6	pH_Units		S4500HB-11	1	04/17/2024 05:55	KMV	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	04/29/2024 11:01	AKH	I
Specific Conductance	377		umhos/cm	5	SM2510B-2011	1	04/18/2024 20:47	LMD	A
Sulfate	5.0		mg/L	2.0	EPA 300.0	2	04/16/2024 12:15	J1W	A

Results

Client Sample ID	CWMP005W	Collected	04/15/2024 12:43
Lab Sample ID	3355103003	Lab Receipt	04/15/2024 15:32

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	240		mg/L	25	SM2540C-15	1	04/18/2024 16:45	RAG	A
Total Organic Carbon (TOC)	0.89		mg/L	0.50	SM5310B-14	1	04/19/2024 02:42	PAG	G
Turbidity	0.45		NTU	0.30	SM2130B-2011	1	04/16/2024 10:04	NPF	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3355103001	CWMP007W	Field	N/A	
		SW846 6020A	SW846 3015A	
		SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		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 9066	SW846 9066	
3355103002	CWMP001W	Field	N/A	
		SW846 6020A	SW846 3015A	
		SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		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 9066	SW846 9066	
3355103003	CWMP005W	Field	N/A	
		SW846 6020A	SW846 3015A	
		SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		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 9066	SW846 9066	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3355103001	CWMP007W	N/A	N/A	N/A		Field	1190854
		SW846 3015A	1182307	04/17/2024 03:16	ANN	SW846 6020A	1187370
		SW846 3015A	1182310	04/17/2024 03:30	ANN	SW846 6020A	1187372
		SW846 7470A	1182920	04/19/2024 10:00	JSE	SW846 7470A	1185015
		SW846 7470A	1182918	04/19/2024 10:00	JSE	SW846 7470A	1185014
		N/A	N/A	N/A		Lib Search VOC	1184808
		N/A	N/A	N/A		SW846 8260B	1183121
		N/A	N/A	N/A		EPA 300.0	1180409
		N/A	N/A	N/A		EPA 300.0	1184722
		N/A	N/A	N/A		EPA 410.4	1182741
		N/A	N/A	N/A		S4500HB-11	1180446
		N/A	N/A	N/A		SM 4500-NH3G	1187343
		N/A	N/A	N/A		SM2130B-2011	1180421
		N/A	N/A	N/A		SM2320B-2011	1180446
		N/A	N/A	N/A		SM2510B-2011	1183794
		N/A	N/A	N/A		SM2540C-15	1183474
		N/A	N/A	N/A		SM5310B-14	1182922
		SW846 9066	1190839	04/26/2024 13:52	AKH	SW846 9066	1190847
3355103002	CWMP001W	N/A	N/A	N/A		Field	1190854
		SW846 3015A	1182307	04/17/2024 03:16	ANN	SW846 6020A	1187370
		SW846 3015A	1182310	04/17/2024 03:30	ANN	SW846 6020A	1187372
		SW846 7470A	1182920	04/19/2024 10:00	JSE	SW846 7470A	1185015
		SW846 7470A	1182918	04/19/2024 10:00	JSE	SW846 7470A	1185014
		N/A	N/A	N/A		Lib Search VOC	1184808
		N/A	N/A	N/A		SW846 8260B	1183121
		N/A	N/A	N/A		EPA 300.0	1180409
		N/A	N/A	N/A		EPA 300.0	1184722
		N/A	N/A	N/A		EPA 410.4	1182741
		N/A	N/A	N/A		S4500HB-11	1180446
		N/A	N/A	N/A		SM 4500-NH3G	1187343
		N/A	N/A	N/A		SM2130B-2011	1180421
		N/A	N/A	N/A		SM2320B-2011	1180446
		N/A	N/A	N/A		SM2510B-2011	1183794
		N/A	N/A	N/A		SM2540C-15	1183474
		N/A	N/A	N/A		SM5310B-14	1182922
		SW846 9066	1190839	04/26/2024 13:52	AKH	SW846 9066	1190847
3355103003	CWMP005W	N/A	N/A	N/A		Field	1190854
		SW846 3015A	1182307	04/17/2024 03:16	ANN	SW846 6020A	1187370
		SW846 3015A	1182310	04/17/2024 03:30	ANN	SW846 6020A	1187372
		SW846 7470A	1182920	04/19/2024 10:00	JSE	SW846 7470A	1185015
		SW846 7470A	1182918	04/19/2024 10:00	JSE	SW846 7470A	1185014
		N/A	N/A	N/A		Lib Search VOC	1184808
		N/A	N/A	N/A		SW846 8260B	1183121
		N/A	N/A	N/A		EPA 300.0	1180409
		N/A	N/A	N/A		EPA 300.0	1184722
		N/A	N/A	N/A		EPA 410.4	1182741
		N/A	N/A	N/A		S4500HB-11	1180446
		N/A	N/A	N/A		SM 4500-NH3G	1187343
		N/A	N/A	N/A		SM2130B-2011	1180421
		N/A	N/A	N/A		SM2320B-2011	1180446
		N/A	N/A	N/A		SM2510B-2011	1183794
		N/A	N/A	N/A		SM2540C-15	1183475
		N/A	N/A	N/A		SM5310B-14	1182922
		SW846 9066	1190839	04/26/2024 13:52	AKH	SW846 9066	1190847

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

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

3355103
Logged By: SLS
PM: SJB

3 of

(by Receiving Lab)

Client Name: Lancaster County Solid Waste MA

Address: 1299 Harrisburg Pike PO Box 4424
Lancaster PA 17604

Contact: Dan Brown
Phone#: 717-735-0193
Project Name/#: Creswell/GWMP Form 19A
Bill To: Lancaster County Solid Waste MA
Purchase Order #:

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

Date Required: **Approved?**
Email? [x] dbrown@lcswma.org

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

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

ANALYSIS / METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	TOC	O-OH	8260 VOCs - Form 19A+ Subtitle D+ TICs	pH, CL, SpC, F, SO4, NO3, Tb, TDS	Alkalinity, HCO3	FM	Sample Depth for AUX Data	NH3-N, COD	Diss Metals Form 19A (field filtered)	Total Metals Form 19A+Subtitle D
							Enter Number of Containers Per Sample or Field Results Below.									
1	CWMP007W	4/15/24	1041		G	GW	2	1	2	1	1	x	x	1	1	1
2	CWMP001W	4/15/24	1143		G	GW	2	1	2	1	1	x	x	1	1	1
3	CWMP005W	4/15/24	1243		G	GW	2	1	2	1	1	x	x	1	1	1
4																
5																
6																
7																
8																
9																
10																

Therm ID: WO Temp (°C)

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

Temp By:	WO Temp (°C)	Therm ID
DPB	3°	373

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

NA NA NA NA

Deviations? NO YES
If YES, list below:

Client contact:
Date/Tech:

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

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

Sample/COC Remarks

DPB 4/15/24

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

Circle Sample Collector: ALS Tech / Client
Name: [illegible] ID:

Comments:

Date:	Time	Relinquished By / Company Name		Received By / Company Name	
4-15-24	1532	1 [illegible] ALS		2 DD/ALS	
		3		4	
		5		6	
		7		8	
		9		10	

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

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

Sample Disposal: Lab [x] Special [ ]

EDDS: Format Type

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

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

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

Rev 07.06.2023

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 2nd QTR 2024 GWMP FORM 19A
Workorder 3356323
Report ID 320332 on 5/6/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Apr 23, 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
3356323001	CWMP012W	Ground Water	04/23/2024 10:02	04/23/2024 15:05	BGS	Analytical Laboratory Service
3356323002	CWMP002W	Ground Water	04/23/2024 12:53	04/23/2024 15:05	BGS	Analytical Laboratory Service
3356323003	Field Blank	Water	04/23/2024 13:30	04/23/2024 15:05	BGS	Analytical Laboratory Service
3356323004	Trip Blank	Water	04/23/2024 15:05	04/23/2024 15:05	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 QC sample type DUP for method SM2540C-15 was outside the control limits for the analyte Total Dissolved Solids. The RPD was reported as 8.22 and the upper control limit is 5.
4	The concentration of this analyte was greater than 4 times the concentration of the spike added to the matrix spike. According to protocol, the calculation for percent recovery of the matrix spike is not valid.
5	The QC sample type MS for method EPA 300.0 was outside the control limits for the analyte Fluoride. The % Recovery was reported as 125 and the control limits were 80 to 120.
6	The QC sample type MSD for method EPA 300.0 was outside the control limits for the analyte Fluoride. The % Recovery was reported as 126 and the control limits were 80 to 120.

Detected Results Summary

Client Sample ID	CWMP012W	Collected	04/23/2024 10:02
Lab Sample ID	3356323001	Lab Receipt	04/23/2024 15:05

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	64.56	Feet		Field	#
Dissolved Oxygen	5.28	mg/L	0.01	Field	#
Oxidation-Reduction Potential	146	mV		Field	#
pH, Field (SM4500B)	5.91	pH_Units		Field	#
Specific Conductance, Field	464	umhos/cm	1	Field	#
Temperature	15.96	Deg. C		Field	#
Turbidity, Field	116	NTU	1	Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.089	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.082	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	29.0	mg/L	0.11	SW846 6020A	#
Calcium, Total	29.2	mg/L	0.11	SW846 6020A	#
Iron, Total	1.8	mg/L	0.056	SW846 6020A	#
Lead, Total	0.0031	mg/L	0.0022	SW846 6020A	#
Magnesium, Dissolved	8.5	mg/L	0.11	SW846 6020A	#
Magnesium, Total	9.0	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.37	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.41	mg/L	0.0056	SW846 6020A	#
Nickel, Total	0.012	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	1.4	mg/L	0.11	SW846 6020A	#
Potassium, Total	1.4	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	14.6	mg/L	0.11	SW846 6020A	#
Sodium, Total	13.9	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.010	mg/L	0.0056	SW846 6020A	#
Zinc, Total	0.0062	mg/L	0.0056	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	78	mg/L	5	SM2320B-2011	#
Alkalinity, Total	78	mg/L	5	SM2320B-2011	#
Chloride	33.6	mg/L	2.0	EPA 300.0	#
Nitrate-N	6.6	mg/L	1.0	EPA 300.0	#
pH	7.41	pH_Units		S4500HB-11	#
Specific Conductance	312	umhos/cm	5	SM2510B-2011	#
Sulfate	5.1	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	228	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	1.9	mg/L	0.50	SM5310B-14	#
Turbidity	70	NTU	0.30	SM2130B-2011	#

Detected Results Summary

Client Sample ID	CWMP002W	Collected	04/23/2024 12:53
Lab Sample ID	3356323002	Lab Receipt	04/23/2024 15:05

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	44.18	Feet		Field	#
Dissolved Oxygen	3.65	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	525.81	Feet		Field	#
Flow Rate	1.32	gal/min		Field	#
Ground Water Elevation	481.63	ft/MSL		Field	#
Oxidation-Reduction Potential	571	mV		Field	#
pH, Field (SM4500B)	5.69	pH_Units		Field	#
Sample Depth	85.00	Feet		Field	#
Specific Conductance, Field	852	umhos/cm	1	Field	#
Temperature	13.85	Deg. C		Field	#
Total Well Depth	100.00	Feet		Field	#
Volume in Water Column	82.06	Gallons		Field	#
Water Level After Purge	62.75	Feet		Field	#
Well Volumes Purged	1.05	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.053	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.052	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	47.9	mg/L	0.11	SW846 6020A	#
Calcium, Total	48.6	mg/L	0.11	SW846 6020A	#
Cobalt, Total	0.011	mg/L	0.0056	SW846 6020A	#
Magnesium, Dissolved	18.1	mg/L	0.11	SW846 6020A	#
Magnesium, Total	18.2	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.83	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.83	mg/L	0.0056	SW846 6020A	#
Mercury, Total	0.00060	mg/L	0.00050	SW846 7470A	#
Nickel, Total	0.030	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	2.9	mg/L	0.11	SW846 6020A	#
Potassium, Total	2.8	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	30.9	mg/L	0.11	SW846 6020A	#
Sodium, Total	29.8	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.0074	mg/L	0.0056	SW846 6020A	#
Zinc, Total	0.0075	mg/L	0.0056	SW846 6020A	#
VOLATILE ORGANICS					
1,1-Dichloroethane	8.9	ug/L	1.0	SW846 8260B	#
1,4-Dichlorobenzene	1.4	ug/L	1.0	SW846 8260B	#
Chlorobenzene	1.2	ug/L	1.0	SW846 8260B	#
Chloroethane	14.4	ug/L	1.0	SW846 8260B	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	307	mg/L	5	SM2320B-2011	#
Alkalinity, Total	307	mg/L	5	SM2320B-2011	#
Chloride	112	mg/L	2.0	EPA 300.0	#
Nitrate-N	5.3	mg/L	1.0	EPA 300.0	#

Detected Results Summary

Sample - CWMP002W (cont.)

Compound	Result	Units	RDL	Method	Flag
WET CHEMISTRY (cont.)					
pH	7.77	pH_Units		S4500HB-11	#
Specific Conductance	606	umhos/cm	5	SM2510B-2011	#
Sulfate	22.3	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	474	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	4.2	mg/L	0.50	SM5310B-14	#
Turbidity	0.70	NTU	0.30	SM2130B-2011	#

Detected Results Summary

Client Sample ID	Field Blank	Collected	04/23/2024 13:30
Lab Sample ID	3356323003	Lab Receipt	04/23/2024 15:05

Compound	Result	Units	RDL	Method	Flag
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
WET CHEMISTRY					
pH	5.81	pH_Units		S4500HB-11	#
Turbidity	0.70	NTU	0.30	SM2130B-2011	#

Detected Results Summary

Client Sample ID	Trip Blank	Collected	04/23/2024 15:05
Lab Sample ID	3356323004	Lab Receipt	04/23/2024 15:05

Compound	Result	Units	RDL	Method	Flag
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#

Results

Client Sample ID	CWMP012W	Collected	04/23/2024 10:02
Lab Sample ID	3356323001	Lab Receipt	04/23/2024 15:05

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	64.56		Feet		Field	1	04/23/2024 10:03	BGS	F
Dissolved Oxygen	5.28		mg/L	0.01	Field	1	04/23/2024 10:03	BGS	F
Oxidation-Reduction Potential	146		mV		Field	1	04/23/2024 10:03	BGS	F
pH, Field (SM4500B)	5.91		pH_Units		Field	1	04/23/2024 10:03	BGS	F
Specific Conductance, Field	464		umhos/cm	1	Field	1	04/23/2024 10:03	BGS	F
Temperature	15.96		Deg. C		Field	1	04/23/2024 10:03	BGS	F
Turbidity, Field	116		NTU	1	Field	1	04/23/2024 10:03	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	04/30/2024 19:39	JTH	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:45	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/29/2024 16:04	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/01/2024 10:45	MO	E1
Barium, Dissolved	0.089		mg/L	0.0056	SW846 6020A	1	04/29/2024 16:04	MO	D1
Barium, Total	0.082		mg/L	0.0056	SW846 6020A	1	05/01/2024 10:45	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/01/2024 10:45	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/29/2024 16:04	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/01/2024 10:45	MO	E1
Calcium, Dissolved	29.0	4	mg/L	0.11	SW846 6020A	1	04/29/2024 16:04	MO	D1
Calcium, Total	29.2		mg/L	0.11	SW846 6020A	1	05/01/2024 10:45	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 16:04	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:45	MO	E1
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:45	MO	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 16:04	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:45	MO	E1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/29/2024 16:04	MO	D1
Iron, Total	1.8		mg/L	0.056	SW846 6020A	1	05/01/2024 10:45	MO	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 16:04	MO	D1
Lead, Total	0.0031		mg/L	0.0022	SW846 6020A	1	05/01/2024 10:45	MO	E1
Magnesium, Dissolved	8.5		mg/L	0.11	SW846 6020A	1	04/29/2024 16:04	MO	D1
Magnesium, Total	9.0		mg/L	0.11	SW846 6020A	1	05/01/2024 10:45	MO	E1
Manganese, Dissolved	0.37		mg/L	0.0056	SW846 6020A	1	04/29/2024 16:04	MO	D1
Manganese, Total	0.41		mg/L	0.0056	SW846 6020A	1	05/01/2024 10:45	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/01/2024 13:07	JSE	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/02/2024 14:34	JSE	E
Nickel, Total	0.012		mg/L	0.0056	SW846 6020A	1	05/01/2024 10:45	MO	E1
Potassium, Dissolved	1.4		mg/L	0.11	SW846 6020A	1	05/06/2024 11:25	MO	D1
Potassium, Total	1.4		mg/L	0.11	SW846 6020A	1	05/01/2024 10:45	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 16:04	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:45	MO	E1

Results

Client Sample ID	CWMP012W	Collected	04/23/2024 10:02
Lab Sample ID	3356323001	Lab Receipt	04/23/2024 15:05

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 16:04	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:45	MO	E1
Sodium, Dissolved	14.6	4	mg/L	0.11	SW846 6020A	1	05/06/2024 11:25	MO	D1
Sodium, Total	13.9		mg/L	0.11	SW846 6020A	1	05/01/2024 10:45	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/01/2024 10:45	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:45	MO	E1
Zinc, Dissolved	0.010		mg/L	0.0056	SW846 6020A	1	04/29/2024 16:04	MO	D1
Zinc, Total	0.0062		mg/L	0.0056	SW846 6020A	1	05/01/2024 10:45	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J

Results

Client Sample ID	CWMP012W	Collected	04/23/2024 10:02
Lab Sample ID	3356323001	Lab Receipt	04/23/2024 15:05

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	04/30/2024 19:39	JTH	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 19:39	JTH	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	91.6%	62 – 133	04/30/2024 19:39	
4-Bromofluorobenzene	460-00-4	103%	79 – 114	04/30/2024 19:39	
Dibromofluoromethane	1868-53-7	101%	78 – 116	04/30/2024 19:39	
Toluene-d8	2037-26-5	107%	76 – 127	04/30/2024 19:39	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	78		mg/L	5	SM2320B-2011	1	04/26/2024 04:41	KMV	A
Alkalinity, Total	78	1	mg/L	5	SM2320B-2011	1	04/26/2024 04:41	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	04/26/2024 17:37	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	04/24/2024 12:00	KMS	C
Chloride	33.6		mg/L	2.0	EPA 300.0	2	04/24/2024 19:34	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	04/24/2024 19:34	J1W	A
Nitrate-N	6.6		mg/L	1.0	EPA 300.0	2	04/24/2024 19:34	J1W	A
pH	7.41	2	pH_Units		S4500HB-11	1	04/26/2024 04:41	KMV	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	04/29/2024 16:38	AKH	I
Specific Conductance	312		umhos/cm	5	SM2510B-2011	1	04/25/2024 17:01	LMD	A
Sulfate	5.1		mg/L	2.0	EPA 300.0	2	04/24/2024 19:34	J1W	A
Total Dissolved Solids	228	3	mg/L	25	SM2540C-15	1	04/29/2024 13:15	RAG	A
Total Organic Carbon (TOC)	1.9		mg/L	0.50	SM5310B-14	1	04/24/2024 21:31	PAG	G
Turbidity	70		NTU	0.30	SM2130B-2011	1	04/24/2024 13:08	NPF	A

Results

Client Sample ID	CWMP002W	Collected	04/23/2024 12:53
Lab Sample ID	3356323002	Lab Receipt	04/23/2024 15:05

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	44.18		Feet		Field	1	04/23/2024 12:53	BGS	F
Dissolved Oxygen	3.65		mg/L	0.01	Field	1	04/23/2024 12:53	BGS	F
Elev Top MW Casing above MSL	525.81		Feet		Field	1	04/23/2024 12:53	BGS	F
Flow Rate	1.32		gal/min		Field	1	04/23/2024 12:53	BGS	F
Ground Water Elevation	481.63		ft/MSL		Field	1	04/23/2024 12:53	BGS	F
Oxidation-Reduction Potential	571		mV		Field	1	04/23/2024 12:53	BGS	F
pH, Field (SM4500B)	5.69		pH_Units		Field	1	04/23/2024 12:53	BGS	F
Sample Depth	85.00		Feet		Field	1	04/23/2024 12:53	BGS	F
Specific Conductance, Field	852		umhos/cm	1	Field	1	04/23/2024 12:53	BGS	F
Temperature	13.85		Deg. C		Field	1	04/23/2024 12:53	BGS	F
Total Well Depth	100.00		Feet		Field	1	04/23/2024 12:53	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	04/23/2024 12:53	BGS	F
Volume in Water Column	82.06		Gallons		Field	1	04/23/2024 12:53	BGS	F
Water Level After Purge	62.75		Feet		Field	1	04/23/2024 12:53	BGS	F
Well Volumes Purged	1.05		Vol		Field	1	04/23/2024 12:53	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	04/30/2024 18:53	JTH	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:47	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/29/2024 16:10	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/01/2024 10:47	MO	E1
Barium, Dissolved	0.053		mg/L	0.0056	SW846 6020A	1	04/29/2024 16:10	MO	D1
Barium, Total	0.052		mg/L	0.0056	SW846 6020A	1	05/01/2024 10:47	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/01/2024 10:47	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/29/2024 16:10	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/01/2024 10:47	MO	E1
Calcium, Dissolved	47.9		mg/L	0.11	SW846 6020A	1	04/29/2024 16:10	MO	D1
Calcium, Total	48.6		mg/L	0.11	SW846 6020A	1	05/01/2024 10:47	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 16:10	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:47	MO	E1
Cobalt, Total	0.011		mg/L	0.0056	SW846 6020A	1	05/01/2024 10:47	MO	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 16:10	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:47	MO	E1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/29/2024 16:10	MO	D1
Iron, Total	ND	ND	mg/L	0.056	SW846 6020A	1	05/01/2024 10:47	MO	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 16:10	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:47	MO	E1
Magnesium, Dissolved	18.1		mg/L	0.11	SW846 6020A	1	04/29/2024 16:10	MO	D1
Magnesium, Total	18.2		mg/L	0.11	SW846 6020A	1	05/01/2024 10:47	MO	E1
Manganese, Dissolved	0.83		mg/L	0.0056	SW846 6020A	1	04/29/2024 16:10	MO	D1

Results

Client Sample ID	CWMP002W	Collected	04/23/2024 12:53
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METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.83		mg/L	0.0056	SW846 6020A	1	05/01/2024 10:47	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/01/2024 13:12	JSE	D
Mercury, Total	0.00060		mg/L	0.00050	SW846 7470A	1	05/02/2024 14:35	JSE	E
Nickel, Total	0.030		mg/L	0.0056	SW846 6020A	1	05/01/2024 10:47	MO	E1
Potassium, Dissolved	2.9		mg/L	0.11	SW846 6020A	1	05/06/2024 11:31	MO	D1
Potassium, Total	2.8		mg/L	0.11	SW846 6020A	1	05/01/2024 10:47	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 16:10	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:47	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 16:10	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:47	MO	E1
Sodium, Dissolved	30.9		mg/L	0.11	SW846 6020A	1	05/06/2024 11:31	MO	D1
Sodium, Total	29.8		mg/L	0.11	SW846 6020A	1	05/01/2024 10:47	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/01/2024 10:47	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:47	MO	E1
Zinc, Dissolved	0.0074		mg/L	0.0056	SW846 6020A	1	04/29/2024 16:10	MO	D1
Zinc, Total	0.0075		mg/L	0.0056	SW846 6020A	1	05/01/2024 10:47	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
1,1-Dichloroethane	8.9		ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
1,4-Dichlorobenzene	1.4		ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J

Results

Client Sample ID	CWMP002W	Collected	04/23/2024 12:53
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VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	1.2		ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Chloroethane	14.4		ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	04/30/2024 18:53	JTH	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 18:53	JTH	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	94.7%	62 – 133	04/30/2024 18:53	
4-Bromofluorobenzene	460-00-4	105%	79 – 114	04/30/2024 18:53	
Dibromofluoromethane	1868-53-7	102%	78 – 116	04/30/2024 18:53	
Toluene-d8	2037-26-5	108%	76 – 127	04/30/2024 18:53	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	307		mg/L	5	SM2320B-2011	1	04/26/2024 04:54	KMV	A
Alkalinity, Total	307	1	mg/L	5	SM2320B-2011	1	04/26/2024 04:54	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	04/26/2024 16:55	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	04/24/2024 12:00	KMS	C
Chloride	112		mg/L	2.0	EPA 300.0	2	04/24/2024 19:46	J1W	A
Fluoride	ND	ND,5,6	mg/L	0.20	EPA 300.0	2	04/24/2024 19:46	J1W	A
Nitrate-N	5.3		mg/L	1.0	EPA 300.0	2	04/24/2024 19:46	J1W	A
pH	7.77	2	pH_Units		S4500HB-11	1	04/26/2024 04:54	KMV	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	04/29/2024 16:46	AKH	I
Specific Conductance	606		umhos/cm	5	SM2510B-2011	1	04/25/2024 17:01	LMD	A
Sulfate	22.3		mg/L	2.0	EPA 300.0	2	04/24/2024 19:46	J1W	A

Results

Client Sample ID	CWMP002W	Collected	04/23/2024 12:53
Lab Sample ID	3356323002	Lab Receipt	04/23/2024 15:05

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	474		mg/L	25	SM2540C-15	1	04/29/2024 15:00	RAG	A
Total Organic Carbon (TOC)	4.2		mg/L	0.50	SM5310B-14	1	04/24/2024 21:31	PAG	G
Turbidity	0.70		NTU	0.30	SM2130B-2011	1	04/24/2024 13:08	NPF	A

Results

Client Sample ID	Field Blank	Collected	04/23/2024 13:30
Lab Sample ID	3356323003	Lab Receipt	04/23/2024 15:05

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	04/30/2024 13:28	JTH	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:49	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/29/2024 16:19	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	05/01/2024 10:49	MO	E1
Barium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 16:19	MO	D1
Barium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:49	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/01/2024 10:49	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/29/2024 16:19	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/01/2024 10:49	MO	E1
Calcium, Dissolved	ND	ND	mg/L	0.11	SW846 6020A	1	04/29/2024 16:19	MO	D1
Calcium, Total	ND	ND	mg/L	0.11	SW846 6020A	1	05/01/2024 10:49	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 16:19	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:49	MO	E1
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:49	MO	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 16:19	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:49	MO	E1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/29/2024 16:19	MO	D1
Iron, Total	ND	ND	mg/L	0.056	SW846 6020A	1	05/01/2024 10:49	MO	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 16:19	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:49	MO	E1
Magnesium, Dissolved	ND	ND	mg/L	0.11	SW846 6020A	1	04/29/2024 16:19	MO	D1
Magnesium, Total	ND	ND	mg/L	0.11	SW846 6020A	1	05/01/2024 10:49	MO	E1
Manganese, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 16:19	MO	D1
Manganese, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:49	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	05/01/2024 13:24	JSE	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	05/02/2024 14:36	JSE	E
Nickel, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:49	MO	E1
Potassium, Dissolved	ND	ND	mg/L	0.11	SW846 6020A	1	05/06/2024 11:34	MO	D1
Potassium, Total	ND	ND	mg/L	0.11	SW846 6020A	1	05/01/2024 10:49	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 16:19	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:49	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 16:19	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:49	MO	E1
Sodium, Dissolved	ND	ND	mg/L	0.11	SW846 6020A	1	05/06/2024 11:34	MO	D1
Sodium, Total	ND	ND	mg/L	0.11	SW846 6020A	1	05/01/2024 10:49	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	05/01/2024 10:49	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:49	MO	E1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 16:19	MO	D1
Zinc, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:49	MO	E1

Results

Client Sample ID	Field Blank	Collected	04/23/2024 13:30
Lab Sample ID	3356323003	Lab Receipt	04/23/2024 15:05

METALS (cont.)

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

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	04/30/2024 13:28	JTH	J

Results

Client Sample ID	Field Blank	Collected	04/23/2024 13:30
Lab Sample ID	3356323003	Lab Receipt	04/23/2024 15:05

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	04/30/2024 13:28	JTH	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 13:28	JTH	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	89.3%	62 – 133	04/30/2024 13:28	
4-Bromofluorobenzene	460-00-4	98.6%	79 – 114	04/30/2024 13:28	
Dibromofluoromethane	1868-53-7	97%	78 – 116	04/30/2024 13:28	
Toluene-d8	2037-26-5	103%	76 – 127	04/30/2024 13:28	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	ND	ND	mg/L	5	SM2320B-2011	1	04/26/2024 05:03	KMV	A
Alkalinity, Total	ND	ND,1	mg/L	5	SM2320B-2011	1	04/26/2024 05:03	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	04/26/2024 17:10	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	04/24/2024 12:00	KMS	C
Chloride	ND	ND	mg/L	2.0	EPA 300.0	2	04/24/2024 19:00	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	04/24/2024 19:00	J1W	A
Nitrate-N	ND	ND	mg/L	1.0	EPA 300.0	2	04/24/2024 19:00	J1W	A
pH	5.81	2	pH_Units		S4500HB-11	1	04/26/2024 05:03	KMV	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	04/29/2024 15:25	AKH	I
Specific Conductance	ND	ND	umhos/cm	5	SM2510B-2011	1	04/25/2024 17:01	LMD	A
Sulfate	ND	ND	mg/L	2.0	EPA 300.0	2	04/24/2024 19:00	J1W	A
Total Dissolved Solids	ND	ND	mg/L	25	SM2540C-15	1	04/29/2024 15:00	RAG	A
Total Organic Carbon (TOC)	ND	ND	mg/L	0.50	SM5310B-14	1	04/24/2024 21:31	PAG	G
Turbidity	0.70		NTU	0.30	SM2130B-2011	1	04/24/2024 13:08	NPF	A

Results

Client Sample ID	Trip Blank	Collected	04/23/2024 15:05
Lab Sample ID	3356323004	Lab Receipt	04/23/2024 15:05

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	04/30/2024 12:42	JTH	A

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A

Results

Client Sample ID	Trip Blank	Collected	04/23/2024 15:05
Lab Sample ID	3356323004	Lab Receipt	04/23/2024 15:05

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	04/30/2024 12:42	JTH	A
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/30/2024 12:42	JTH	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	93.6%	62 – 133	04/30/2024 12:42	
4-Bromofluorobenzene	460-00-4	102%	79 – 114	04/30/2024 12:42	
Dibromofluoromethane	1868-53-7	101%	78 – 116	04/30/2024 12:42	
Toluene-d8	2037-26-5	107%	76 – 127	04/30/2024 12:42	

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3356323001	CWMP012W	Field	N/A	
		SW846 6020A	SW846 3015A	
		SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		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 9066	SW846 9066	
3356323002	CWMP002W	Field	N/A	
		SW846 6020A	SW846 3015A	
		SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		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 9066	SW846 9066	
3356323003	Field Blank	SW846 6020A	SW846 3015A	
		SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		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 9066	SW846 9066	
3356323004	Trip Blank	Lib Search VOC	N/A	
		SW846 8260B	N/A	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3356323001	CWMP012W	N/A	N/A	N/A		Field	1190854
		SW846 3015A	1192110	04/29/2024 03:32	ANN	SW846 6020A	1192297
		SW846 3015A	1192110	04/29/2024 03:32	ANN	SW846 6020A	1192576
		SW846 3015A	1187391	04/24/2024 04:24	ANN	SW846 6020A	1192815
		SW846 7470A	1192738	05/01/2024 09:10	JSE	SW846 7470A	1192909
		SW846 7470A	1193026	05/02/2024 11:28	JSE	SW846 7470A	1194835
		N/A	N/A	N/A		Lib Search VOC	1197014
		N/A	N/A	N/A		SW846 8260B	1192553
		N/A	N/A	N/A		EPA 300.0	1187606
		N/A	N/A	N/A		EPA 410.4	1187909
		N/A	N/A	N/A		S4500HB-11	1188652
		N/A	N/A	N/A		SM 4500-NH3G	1189708
		N/A	N/A	N/A		SM2130B-2011	1187709
		N/A	N/A	N/A		SM2320B-2011	1188652
		N/A	N/A	N/A		SM2510B-2011	1189613
		N/A	N/A	N/A		SM2540C-15	1190731
		N/A	N/A	N/A		SM5310B-14	1188020
		SW846 9066	1190839	04/26/2024 13:52	AKH	SW846 9066	1190847
3356323002	CWMP002W	N/A	N/A	N/A		Field	1190854
		SW846 3015A	1192110	04/29/2024 03:32	ANN	SW846 6020A	1192297
		SW846 3015A	1192110	04/29/2024 03:32	ANN	SW846 6020A	1192576
		SW846 3015A	1187391	04/24/2024 04:24	ANN	SW846 6020A	1192815
		SW846 7470A	1192738	05/01/2024 09:10	JSE	SW846 7470A	1192909
		SW846 7470A	1193026	05/02/2024 11:28	JSE	SW846 7470A	1194835
		N/A	N/A	N/A		Lib Search VOC	1197014
		N/A	N/A	N/A		SW846 8260B	1192553
		N/A	N/A	N/A		EPA 300.0	1187606
		N/A	N/A	N/A		EPA 410.4	1187909
		N/A	N/A	N/A		S4500HB-11	1188652
		N/A	N/A	N/A		SM 4500-NH3G	1189708
		N/A	N/A	N/A		SM2130B-2011	1187709
		N/A	N/A	N/A		SM2320B-2011	1188652
		N/A	N/A	N/A		SM2510B-2011	1189613
		N/A	N/A	N/A		SM2540C-15	1190732
		N/A	N/A	N/A		SM5310B-14	1188020
		SW846 9066	1190839	04/26/2024 13:52	AKH	SW846 9066	1190847
3356323003	Field Blank	SW846 3015A	1192110	04/29/2024 03:32	ANN	SW846 6020A	1192576
		SW846 3015A	1192110	04/29/2024 03:32	ANN	SW846 6020A	1192297
		SW846 3015A	1187391	04/24/2024 04:24	ANN	SW846 6020A	1192815
		SW846 7470A	1192738	05/01/2024 09:10	JSE	SW846 7470A	1192909
		SW846 7470A	1193026	05/02/2024 11:28	JSE	SW846 7470A	1194835
		N/A	N/A	N/A		Lib Search VOC	1197014
		N/A	N/A	N/A		SW846 8260B	1192553
		N/A	N/A	N/A		EPA 300.0	1187606
		N/A	N/A	N/A		EPA 410.4	1187909
		N/A	N/A	N/A		S4500HB-11	1188652
		N/A	N/A	N/A		SM 4500-NH3G	1189708
		N/A	N/A	N/A		SM2130B-2011	1187709
		N/A	N/A	N/A		SM2320B-2011	1188652
		N/A	N/A	N/A		SM2510B-2011	1189613
		N/A	N/A	N/A		SM2540C-15	1190732
		N/A	N/A	N/A		SM5310B-14	1188020
		SW846 9066	1190839	04/26/2024 13:52	AKH	SW846 9066	1190847
3356323004	Trip Blank	N/A	N/A	N/A		Lib Search VOC	1197014
		N/A	N/A	N/A		SW846 8260B	1192553

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

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

COC #: 3356323
Logged By: MJE
PM: SJB
ALS Quote #:
of

Client Name: Lancaster County Solid Waste MA

Address: 1299 Harrisburg Pike PO Box 4424
Lancaster PA 17604

Contact: Dan Brown
Phone#: 717-735-0193
Project Name/#: Creswell/GWMP Form 19A
Bill To: Lancaster County Solid Waste MA
Purchase Order #:

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

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

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

ANALYSIS / METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	TOC	O-OH	8260 VOCs - Form 19A+ Subtitle D+ TICs	pH, CL, SpC, F, SO4, NO3, Tb, TDS	Alkalinity, HCO3	FM	Sample Debth for AUX Data	NH3-N, COD	Diss Metals Form 19A (field filtered)	Total Metals Form 19A+Subtitle D
							Enter Number of Containers Per Sample or Field Results Below.									
1	CWMP012W	4/23/24	1002		G	GW	2	1	2	1	1	x	x	1	2	2
2	CWMP002W	4/23/24	1253		G	GW	2	1	2	1	1	x	x	1	2	2
3	Field Blank	4/23/24	1330		G	DI	2	1	2	1	1	x	x	1	2	2
4	Trip Blank	4/23/24	1505		G	DI			2							
5															DAG 4/23/24	
6																
7																
8																
9																
10																

Circle Sample Collector: ALS Tech / Client
Name: KG Shade ID:

Comments:

Date:	Time		Relinquished By / Company Name		Received By / Company Name
4-23-24	1505	1	KG Shade ALS	2	
		3		4	
		5		6	
		7		8	
		9		10	

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

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

Temp Taken By: DAG Therm ID: 571 WO Temp (°C) 2
Receipt Info completed by: DAG
WV Containers 0-6°C Y N NA

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

NJ ≤ 4 days? Y N
Courier/Tracking #

Deviations? NO YES
If YES, llist below
2 PFHNO3
2 PHNO3
Vials 1-3
DAG 4/23/24
Client contact:
Date/Tech:

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

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

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

Sample/COC Remarks

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

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

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

Sample Disposal: Lab [x] Special [ ]

EDDS: Format Type

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

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 2nd QTR 2024 GWMP FORM 19A
Workorder 3355968
Report ID 320242 on 5/6/2024 (Revised report. See Project Notations Section.)

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Apr 19, 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
3355968001	CWMP003W	Ground Water	04/19/2024 10:19	04/19/2024 16:45	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

P1	This certificate of analysis was modified to include the qualified Total Dissolved Solids result analyzed within the 7-day holding time based on the inquiry from Dan Brown on 05/03/24. SJS 05/06/24

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L.
2	The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory.
3	The QC sample type MB for method EPA 300.0 was outside the control limits for the analyte Sulfate. The concentration was reported at 8 mg/L and the control limit is less than 0.7mg/L.
4	The Method Blank for method SM2540C-15 reported a value greater than the reporting level for the analyte Total Dissolved Solids. The concentration was 46 mg/L.
5	The sample was originally run within hold time, but required further analysis that exceeded hold time.

Detected Results Summary

Client Sample ID	CWMP003W	Collected	04/19/2024 10:19
Lab Sample ID	3355968001	Lab Receipt	04/19/2024 16:45

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	66.11	Feet		Field	#
Dissolved Oxygen	9.97	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	524.21	Feet		Field	#
Flow Rate	2.26	gal/min		Field	#
Ground Water Elevation	458.10	ft/MSL		Field	#
Oxidation-Reduction Potential	293	mV		Field	#
pH, Field (SM4500B)	5.26	pH_Units		Field	#
Sample Depth	100.00	Feet		Field	#
Specific Conductance, Field	480	umhos/cm	1	Field	#
Temperature	14.41	Deg. C		Field	#
Total Well Depth	140.00	Feet		Field	#
Volume in Water Column	108.62	Gallons		Field	#
Water Level After Purge	87.74	Feet		Field	#
Well Volumes Purged	1.14	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.019	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.018	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	21.1	mg/L	0.11	SW846 6020A	#
Calcium, Total	20.9	mg/L	0.11	SW846 6020A	#
Magnesium, Dissolved	8.7	mg/L	0.11	SW846 6020A	#
Magnesium, Total	8.1	mg/L	0.11	SW846 6020A	#
Manganese, Total	0.0074	mg/L	0.0056	SW846 6020A	#
Nickel, Total	0.0091	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	1.7	mg/L	0.11	SW846 6020A	#
Potassium, Total	1.6	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	23.5	mg/L	0.11	SW846 6020A	#
Sodium, Total	23.0	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.0058	mg/L	0.0056	SW846 6020A	#
VOLATILE ORGANICS					
1,1-Dichloroethane	1.6	ug/L	1.0	SW846 8260B	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	21	mg/L	5	SM2320B-2011	#
Alkalinity, Total	21	mg/L	5	SM2320B-2011	#
Chloride	78.8	mg/L	5.0	EPA 300.0	#
Nitrate-N	5.6	mg/L	2.5	EPA 300.0	#
pH	6.90	pH_Units		S4500HB-11	#
Specific Conductance	340	umhos/cm	5	SM2510B-2011	#
Sulfate	8.2	mg/L	5.0	EPA 300.0	#
Total Dissolved Solids	242	mg/L	25	SM2540C-15	#
Total Dissolved Solids	258	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	0.59	mg/L	0.50	SM5310B-14	#
Turbidity	1.0	NTU	0.30	SM2130B-2011	#

Detected Results Summary

Sample - CWMP003W (cont.)

Compound	Result	Units	RDL	Method	Flag

Results

Client Sample ID	CWMP003W	Collected	04/19/2024 10:19
Lab Sample ID	3355968001	Lab Receipt	04/19/2024 16:45

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	66.11	P1	Feet		Field	1	04/19/2024 10:19	BGS	G
Dissolved Oxygen	9.97	P1	mg/L	0.01	Field	1	04/19/2024 10:19	BGS	G
Elev Top MW Casing above MSL	524.21	P1	Feet		Field	1	04/19/2024 10:19	BGS	G
Flow Rate	2.26	P1	gal/min		Field	1	04/19/2024 10:19	BGS	G
Ground Water Elevation	458.10	P1	ft/MSL		Field	1	04/19/2024 10:19	BGS	G
Oxidation-Reduction Potential	293	P1	mV		Field	1	04/19/2024 10:19	BGS	G
pH, Field (SM4500B)	5.26	P1	pH_Units		Field	1	04/19/2024 10:19	BGS	G
Sample Depth	100.00	P1	Feet		Field	1	04/19/2024 10:19	BGS	G
Specific Conductance, Field	480	P1	umhos/cm	1	Field	1	04/19/2024 10:19	BGS	G
Temperature	14.41	P1	Deg. C		Field	1	04/19/2024 10:19	BGS	G
Total Well Depth	140.00	P1	Feet		Field	1	04/19/2024 10:19	BGS	G
Turbidity, Field	ND	ND,P1	NTU	1	Field	1	04/19/2024 10:19	BGS	G
Volume in Water Column	108.62	P1	Gallons		Field	1	04/19/2024 10:19	BGS	G
Water Level After Purge	87.74	P1	Feet		Field	1	04/19/2024 10:19	BGS	G
Well Volumes Purged	1.14	P1	Vol		Field	1	04/19/2024 10:19	BGS	G

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.	P1			Lib Search VOC	1	04/25/2024 04:30	BST	K

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND,P1	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:58	MO	E2
Arsenic, Dissolved	ND	ND,P1	mg/L	0.0030	SW846 6020A	1	05/01/2024 11:01	MO	C1
Arsenic, Total	ND	ND,P1	mg/L	0.0033	SW846 6020A	1	04/29/2024 11:58	MO	E2
Barium, Dissolved	0.019	P1	mg/L	0.0056	SW846 6020A	1	05/01/2024 11:01	MO	C1
Barium, Total	0.018	P1	mg/L	0.0056	SW846 6020A	1	04/29/2024 11:58	MO	E2
Beryllium, Total	ND	ND,P1	mg/L	0.0011	SW846 6020A	1	04/29/2024 11:58	MO	E2
Cadmium, Dissolved	ND	ND,P1	mg/L	0.0011	SW846 6020A	1	05/01/2024 11:01	MO	C1
Cadmium, Total	ND	ND,P1	mg/L	0.0011	SW846 6020A	1	04/29/2024 11:58	MO	E2
Calcium, Dissolved	21.1	P1	mg/L	0.11	SW846 6020A	1	05/01/2024 11:01	MO	C1
Calcium, Total	20.9	P1	mg/L	0.11	SW846 6020A	1	04/29/2024 11:58	MO	E2
Chromium, Dissolved	ND	ND,P1	mg/L	0.0022	SW846 6020A	1	05/01/2024 11:01	MO	C1
Chromium, Total	ND	ND,P1	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:58	MO	E2
Cobalt, Total	ND	ND,P1	mg/L	0.0056	SW846 6020A	1	04/29/2024 11:58	MO	E2
Copper, Dissolved	ND	ND,P1	mg/L	0.0056	SW846 6020A	1	05/01/2024 11:01	MO	C1
Copper, Total	ND	ND,P1	mg/L	0.0056	SW846 6020A	1	04/29/2024 11:58	MO	E2
Iron, Dissolved	ND	ND,P1	mg/L	0.056	SW846 6020A	1	05/01/2024 11:01	MO	C1
Iron, Total	ND	ND,P1	mg/L	0.056	SW846 6020A	1	04/29/2024 11:58	MO	E2
Lead, Dissolved	ND	ND,P1	mg/L	0.0022	SW846 6020A	1	05/01/2024 11:01	MO	C1
Lead, Total	ND	ND,P1	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:58	MO	E2
Magnesium, Dissolved	8.7	P1	mg/L	0.11	SW846 6020A	1	05/01/2024 11:01	MO	C1
Magnesium, Total	8.1	P1	mg/L	0.11	SW846 6020A	1	04/29/2024 11:58	MO	E2
Manganese, Dissolved	ND	ND,P1	mg/L	0.0056	SW846 6020A	1	05/01/2024 11:01	MO	C1

Results

Client Sample ID	CWMP003W	Collected	04/19/2024 10:19
Lab Sample ID	3355968001	Lab Receipt	04/19/2024 16:45

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.0074	P1	mg/L	0.0056	SW846 6020A	1	04/29/2024 11:58	MO	E2
Mercury, Dissolved	ND	ND,P1	mg/L	0.00050	SW846 7470A	1	04/29/2024 14:58	JSE	C
Mercury, Total	ND	ND,P1	mg/L	0.00050	SW846 7470A	1	04/29/2024 16:39	JSE	E
Nickel, Total	0.0091	P1	mg/L	0.0056	SW846 6020A	1	04/29/2024 11:58	MO	E2
Potassium, Dissolved	1.7	P1	mg/L	0.11	SW846 6020A	1	05/01/2024 11:01	MO	C1
Potassium, Total	1.6	P1	mg/L	0.11	SW846 6020A	1	04/29/2024 11:58	MO	E2
Selenium, Dissolved	ND	ND,P1	mg/L	0.0056	SW846 6020A	1	05/01/2024 11:01	MO	C1
Selenium, Total	ND	ND,P1	mg/L	0.0056	SW846 6020A	1	04/29/2024 11:58	MO	E2
Silver, Dissolved	ND	ND,P1	mg/L	0.0022	SW846 6020A	1	05/01/2024 11:01	MO	C1
Silver, Total	ND	ND,P1	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:58	MO	E2
Sodium, Dissolved	23.5	P1	mg/L	0.11	SW846 6020A	1	05/01/2024 11:01	MO	C1
Sodium, Total	23.0	P1	mg/L	0.11	SW846 6020A	1	04/29/2024 11:58	MO	E2
Thallium, Total	ND	ND,P1	mg/L	0.0011	SW846 6020A	1	04/29/2024 11:58	MO	E2
Vanadium, Total	ND	ND,P1	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:58	MO	E2
Zinc, Dissolved	0.0058	P1	mg/L	0.0056	SW846 6020A	1	05/01/2024 11:01	MO	C1
Zinc, Total	ND	ND,P1	mg/L	0.0056	SW846 6020A	1	04/29/2024 11:58	MO	E2

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
1,1,1-Trichloroethane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
1,1,2,2-Tetrachloroethane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
1,1,2-Trichloroethane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
1,1-Dichloroethane	1.6	P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
1,1-Dichloroethene	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
1,2,3-Trichloropropane	ND	ND,P1	ug/L	2.0	SW846 8260B	1	04/25/2024 04:30	BST	K
1,2-Dibromo-3-chloropropane	ND	ND,P1	ug/L	7.0	SW846 8260B	1	04/25/2024 04:30	BST	K
1,2-Dibromoethane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
1,2-Dichlorobenzene	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
1,2-Dichloroethane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
1,2-Dichloropropane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
1,3-Dichlorobenzene	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
1,4-Dichlorobenzene	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
2-Butanone	ND	ND,P1	ug/L	10.0	SW846 8260B	1	04/25/2024 04:30	BST	K
2-Hexanone	ND	ND,P1	ug/L	5.0	SW846 8260B	1	04/25/2024 04:30	BST	K
3-Chloro-1-propene	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
4-Methyl-2-Pentanone(MIBK)	ND	ND,P1	ug/L	5.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Acetone	ND	ND,P1	ug/L	10.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Acrylonitrile	ND	ND,P1	ug/L	5.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Benzene	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Bromochloromethane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Bromodichloromethane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Bromoform	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Bromomethane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Carbon Disulfide	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Carbon Tetrachloride	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K

Results

Client Sample ID	CWMP003W	Collected	04/19/2024 10:19
Lab Sample ID	3355968001	Lab Receipt	04/19/2024 16:45

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Chlorodibromomethane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Chloroethane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Chloroform	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Chloromethane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
cis-1,2-Dichloroethene	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
cis-1,3-Dichloropropene	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Dibromomethane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Dichlorodifluoromethane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Ethylbenzene	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Iodomethane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Methylene Chloride	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Styrene	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Tetrachloroethene	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Toluene	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Total Xylenes	ND	ND,P1	ug/L	3.0	SW846 8260B	1	04/25/2024 04:30	BST	K
trans-1,2-Dichloroethene	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
trans-1,3-Dichloropropene	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
trans-1,4-Dichloro-2-butene	ND	ND,P1	ug/L	3.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Trichloroethene	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Trichlorofluoromethane	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Vinyl Acetate	ND	ND,P1	ug/L	5.0	SW846 8260B	1	04/25/2024 04:30	BST	K
Vinyl Chloride	ND	ND,P1	ug/L	1.0	SW846 8260B	1	04/25/2024 04:30	BST	K

TICs by Library Search

Compound	CAS No	Result	Units	Qualifiers
Unknown	Unknown	37.4	ug/L	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	111%	62 – 133	04/25/2024 04:30	
4-Bromofluorobenzene	460-00-4	97.3%	79 – 114	04/25/2024 04:30	
Dibromofluoromethane	1868-53-7	100%	78 – 116	04/25/2024 04:30	
Toluene-d8	2037-26-5	96.6%	76 – 127	04/25/2024 04:30	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	21	P1	mg/L	5	SM2320B-2011	1	04/25/2024 02:52	KMV	A
Alkalinity, Total	21	1,P1	mg/L	5	SM2320B-2011	1	04/25/2024 02:52	KMV	A
Ammonia-N, Low Level	ND	ND,P1	mg/L	0.10	SM 4500-NH3G	1	04/24/2024 22:40	NML	B
Chemical Oxygen Demand (COD)	ND	ND,P1	mg/L	15	EPA 410.4	1	04/22/2024 13:00	KMS	B
Chloride	78.8	P1	mg/L	5.0	EPA 300.0	5	04/20/2024 12:25	GMM	A
Fluoride	ND	ND,P1	mg/L	0.50	EPA 300.0	5	04/20/2024 12:25	GMM	A

Results

Client Sample ID	CWMP003W	Collected	04/19/2024 10:19
Lab Sample ID	3355968001	Lab Receipt	04/19/2024 16:45

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Nitrate-N	5.6	P1	mg/L	2.5	EPA 300.0	5	04/20/2024 12:25	GMM	A
pH	6.90	2,P1	pH_Units		S4500HB-11	1	04/25/2024 02:52	KMV	A
Phenolics	ND	ND,P1	mg/L	0.004	SW846 9066	1	04/29/2024 18:33	AKH	J
Specific Conductance	340	P1	umhos/cm	5	SM2510B-2011	1	04/25/2024 16:50	BLP	A
Sulfate	8.2	3,P1	mg/L	5.0	EPA 300.0	5	04/20/2024 12:25	GMM	A
Total Dissolved Solids	242	4,P1	mg/L	25	SM2540C-15	1	04/25/2024 18:25	RAG	A
Total Dissolved Solids	258	5,P1	mg/L	25	SM2540C-15	1	04/29/2024 18:00	RAG	A
Total Organic Carbon (TOC)	0.59	P1	mg/L	0.50	SM5310B-14	1	04/23/2024 21:25	PAG	H
Turbidity	1.0	P1	NTU	0.30	SM2130B-2011	1	04/20/2024 09:21	NPF	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3355968001	CWMP003W	Field	N/A	
		SW846 6020A	SW846 3015A	
		SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		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	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		SW846 9066	SW846 9066	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3355968001	CWMP003W	N/A	N/A	N/A		Field	1190854
		SW846 3015A	1186408	04/23/2024 02:55	ANN	SW846 6020A	1192817
		SW846 3015A	1187109	04/23/2024 02:18	ANN	SW846 6020A	1192235
		SW846 7470A	1192264	04/29/2024 11:00	JSE	SW846 7470A	1192316
		SW846 7470A	1192255	04/29/2024 11:00	JSE	SW846 7470A	1192314
		N/A	N/A	N/A		Lib Search VOC	1192709
		N/A	N/A	N/A		SW846 8260B	1188221
		N/A	N/A	N/A		EPA 300.0	1185906
		N/A	N/A	N/A		EPA 410.4	1186530
		N/A	N/A	N/A		S4500HB-11	1186643
		N/A	N/A	N/A		SM 4500-NH3G	1187352
		N/A	N/A	N/A		SM2130B-2011	1185907
		N/A	N/A	N/A		SM2320B-2011	1186643
		N/A	N/A	N/A		SM2510B-2011	1189206
		N/A	N/A	N/A		SM2540C-15	1188626
		N/A	N/A	N/A		SM2540C-15	1192269
		N/A	N/A	N/A		SM5310B-14	1187328
		SW846 9066	1190839	04/26/2024 13:52	AKH	SW846 9066	1190847

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

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

COC #: 355968 Logged By: DIG PM: SJB

ALS Quote #: of

Client Name: Lancaster County Solid Waste MA

Address: 1299 Harrisburg Pike PO Box 4424
Lancaster PA 17604

Contact: Dan Brown
Phone#: 717-735-0193
Project Name/#: Creswell/GWMP Form 19A
Bill To: Lancaster County Solid Waste MA
Purchase Order #:

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

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

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

ANALYSIS / METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	TOC	O-OH	8260 VOCs - Form 19A+ Subtitle D+ TICs	pH, Cl, SpC, F, SO4, NO3, Tb, TDS	Alkalinity, HCO3	FM	Sample Debth for AUX Data	NH3-N, COD	Diss Metals Form 19A (field filtered)	Total Metals Form 19A+Subtitle D
	Enter Number of Containers Per Sample or Field Results Below.						2	1	2	1	1	x	x	1	1/2	1/2
1	CWMP003W	4/19/24	1019		G	GW										DPB 4/19/24
2																
3																
4																
5																
6																
7																
8																
9																
10																

Temp Taken By: MVP Therm ID: 570 WO Temp (°C) 22

Receipt Info completed by: _____

WV Containers 0-6°C Y N NA

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

Receipt Info Completed By:	DPB
Cooler Custody Seal Intact	Y N NA
Sample Custody Seal Intact	Y N NA
Received on Ice	N NA
Cooler & Samples Intact	Y N
Correct Containers Provided	Y N
Sample Label/COC Agree	Y N NA
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

Deviations? NO YES
If YES, list below.

Client contact:
Date/Tech:

Rad Screen (uCi)_____

New Source? Y N

New Source Contact:

#:_____

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

Sample/COC Remarks

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

Circle Sample Collector: ALS Tech / Client
Name: KS Shaffer ID:

Comments:

Date:	Time		Relinquished By / Company Name		Received By / Company Name
4-19-24	1645	1	KS Shaffer ALS	2	
		3		4	
		5		6	
		7		8	
		9		10	

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

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

Sample Disposal: Lab [x] Special [ ]

EDDS: Format Type

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

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

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

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 2nd QTR 2024 GWMP FORM 19A
Workorder 3355780
Report ID 321026 on 5/9/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Apr 18, 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
3355780001	CWMP016W	Ground Water	04/18/2024 10:56	04/18/2024 16:55	BGS	Analytical Laboratory Service
3355780002	CWMP010W	Ground Water	04/18/2024 11:40	04/18/2024 16:55	BGS	Analytical Laboratory Service
3355780003	CWMP009W	Ground Water	04/18/2024 12:25	04/18/2024 16:55	BGS	Analytical Laboratory Service
3355780004	CWMP008W	Ground Water	04/18/2024 13:28	04/18/2024 16:55	BGS	Analytical Laboratory Service
3355780005	CWMP004W	Ground Water	04/18/2024 15:40	04/18/2024 16:55	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 QC type LLCCV for method SW846 6020A was outside the control limits for the analyte Na. The % recovery was reported as 133.7 and the control limits were 70 to 130. The sample concentration was above the concentration of the CCV.
4	The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 3-Chloro-1-propene. The % Recovery was reported as 139 and the control limits were 59 to 135.
5	The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 135 and the control limits were 63 to 128.
6	The QC sample type MSD for method SW846 8260B was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 132 and the control limits were 63 to 128.
7	The QC type LLCCV for method SW846 6020A was outside the control limits for the analyte Na. The % recovery was reported as 132.3 and the control limits were 70 to 130. The sample concentration was above the concentration of the CCV.
8	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	CWMP016W	Collected	04/18/2024 10:56
Lab Sample ID	3355780001	Lab Receipt	04/18/2024 16:55

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	52.45	Feet		Field	#
Dissolved Oxygen	9.07	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	311.97	Feet		Field	#
Flow Rate	2.33	gal/min		Field	#
Ground Water Elevation	259.52	ft/MSL		Field	#
Oxidation-Reduction Potential	279	mV		Field	#
pH, Field (SM4500B)	5.50	pH_Units		Field	#
Sample Depth	71.00	Feet		Field	#
Specific Conductance, Field	82	umhos/cm	1	Field	#
Temperature	12.55	Deg. C		Field	#
Total Well Depth	73.52	Feet		Field	#
Volume in Water Column	30.97	Gallons		Field	#
Water Level After Purge	53.95	Feet		Field	#
Well Volumes Purged	3.39	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.010	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.0099	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	4.9	mg/L	0.11	SW846 6020A	#
Calcium, Total	5.0	mg/L	0.11	SW846 6020A	#
Chromium, Total	0.0033	mg/L	0.0022	SW846 6020A	#
Cobalt, Total	0.010	mg/L	0.0056	SW846 6020A	#
Iron, Total	1.3	mg/L	0.056	SW846 6020A	#
Lead, Total	0.0036	mg/L	0.0022	SW846 6020A	#
Magnesium, Dissolved	1.2	mg/L	0.11	SW846 6020A	#
Magnesium, Total	1.2	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.0089	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.023	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	0.50	mg/L	0.11	SW846 6020A	#
Potassium, Total	0.49	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	2.9	mg/L	0.11	SW846 6020A	#
Sodium, Total	2.9	mg/L	0.11	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	13	mg/L	5	SM2320B-2011	#
Alkalinity, Total	13	mg/L	5	SM2320B-2011	#
Chloride	2.1	mg/L	2.0	EPA 300.0	#
Nitrate-N	1.2	mg/L	1.0	EPA 300.0	#
pH	7.60	pH_Units		S4500HB-11	#
Specific Conductance	56	umhos/cm	5	SM2510B-2011	#
Sulfate	10.5	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	49	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	0.82	mg/L	0.50	SM5310B-14	#
Turbidity	22	NTU	0.30	SM2130B-2011	#

Detected Results Summary

Client Sample ID	CWMP010W	Collected	04/18/2024 11:40
Lab Sample ID	3355780002	Lab Receipt	04/18/2024 16:55

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	8.51	Feet		Field	#
Dissolved Oxygen	7.98	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	360.90	Feet		Field	#
Flow Rate	0.47	gal/min		Field	#
Ground Water Elevation	352.39	ft/MSL		Field	#
Oxidation-Reduction Potential	252	mV		Field	#
pH, Field (SM4500B)	6.29	pH_Units		Field	#
Sample Depth	17.00	Feet		Field	#
Specific Conductance, Field	673	umhos/cm	1	Field	#
Temperature	12.87	Deg. C		Field	#
Total Well Depth	19.60	Feet		Field	#
Volume in Water Column	7.21	Gallons		Field	#
Water Level After Purge	10.12	Feet		Field	#
Well Volumes Purged	0.98	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.029	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.029	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	22.4	mg/L	0.11	SW846 6020A	#
Calcium, Total	22.2	mg/L	0.11	SW846 6020A	#
Chromium, Dissolved	0.0026	mg/L	0.0022	SW846 6020A	#
Chromium, Total	0.0045	mg/L	0.0022	SW846 6020A	#
Iron, Total	0.070	mg/L	0.056	SW846 6020A	#
Magnesium, Dissolved	17.8	mg/L	0.11	SW846 6020A	#
Magnesium, Total	17.5	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.0086	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.021	mg/L	0.0056	SW846 6020A	#
Nickel, Total	0.012	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	3.9	mg/L	0.11	SW846 6020A	#
Potassium, Total	3.9	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	44.5	mg/L	0.11	SW846 6020A	#
Sodium, Total	44.3	mg/L	0.11	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	97	mg/L	5	SM2320B-2011	#
Alkalinity, Total	97	mg/L	5	SM2320B-2011	#
Chloride	62.4	mg/L	2.0	EPA 300.0	#
Nitrate-N	5.9	mg/L	1.0	EPA 300.0	#
pH	7.99	pH_Units		S4500HB-11	#
Specific Conductance	469	umhos/cm	5	SM2510B-2011	#
Sulfate	22.6	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	254	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	2.1	mg/L	0.50	SM5310B-14	#
Turbidity	0.80	NTU	0.30	SM2130B-2011	#

Detected Results Summary

Client Sample ID	CWMP009W	Collected	04/18/2024 12:25
Lab Sample ID	3355780003	Lab Receipt	04/18/2024 16:55

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	8.95	Feet		Field	#
Dissolved Oxygen	0.07	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	404.20	Feet		Field	#
Flow Rate	1.54	gal/min		Field	#
Ground Water Elevation	395.25	ft/MSL		Field	#
Oxidation-Reduction Potential	-38	mV		Field	#
pH, Field (SM4500B)	6.09	pH_Units		Field	#
Sample Depth	16.00	Feet		Field	#
Specific Conductance, Field	4322	umhos/cm	1	Field	#
Temperature	11.47	Deg. C		Field	#
Total Well Depth	19.70	Feet		Field	#
Volume in Water Column	6.99	Gallons		Field	#
Water Level After Purge	11.09	Feet		Field	#
Well Volumes Purged	4.41	Vol		Field	#
METALS					
Arsenic, Dissolved	0.0047	mg/L	0.0030	SW846 6020A	#
Arsenic, Total	0.0042	mg/L	0.0033	SW846 6020A	#
Barium, Dissolved	0.85	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.86	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	175	mg/L	11.0	SW846 6020A	#
Calcium, Total	161	mg/L	0.11	SW846 6020A	#
Chromium, Total	0.0039	mg/L	0.0022	SW846 6020A	#
Cobalt, Total	0.063	mg/L	0.0056	SW846 6020A	#
Iron, Dissolved	35.6	mg/L	0.056	SW846 6020A	#
Iron, Total	34.2	mg/L	0.056	SW846 6020A	#
Magnesium, Dissolved	91.0	mg/L	0.11	SW846 6020A	#
Magnesium, Total	85.1	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	13.6	mg/L	0.56	SW846 6020A	#
Manganese, Total	13.1	mg/L	0.56	SW846 6020A	#
Nickel, Total	0.11	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	34.1	mg/L	0.11	SW846 6020A	#
Potassium, Total	32.6	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	213	mg/L	11.0	SW846 6020A	#
Sodium, Total	213	mg/L	11.0	SW846 6020A	#
VOLATILE ORGANICS					
1,1-Dichloroethane	1.2	ug/L	1.0	SW846 8260B	#
1,2-Dichlorobenzene	2.2	ug/L	1.0	SW846 8260B	#
1,4-Dichlorobenzene	10.4	ug/L	1.0	SW846 8260B	#
Benzene	2.2	ug/L	1.0	SW846 8260B	#
Chlorobenzene	16.4	ug/L	1.0	SW846 8260B	#
Chloroethane	8.5	ug/L	1.0	SW846 8260B	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	546	mg/L	50	SM2320B-2011	#
Alkalinity, Total	546	mg/L	50	SM2320B-2011	#
Ammonia-N, Low Level	30.7	mg/L	1.00	SM 4500-NH3G	#

Detected Results Summary

Sample - CWMP009W (cont.)

Compound	Result	Units	RDL	Method	Flag
WET CHEMISTRY (cont.)					
Chemical Oxygen Demand (COD)	109	mg/L	15	EPA 410.4	#
Chloride	671	mg/L	10.0	EPA 300.0	#
pH	7.62	pH_Units		S4500HB-11	#
Specific Conductance	3290	umhos/cm	50	SM2510B-2011	#
Sulfate	6.7	mg/L	5.0	EPA 300.0	#
Total Dissolved Solids	1650	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	36.4	mg/L	5.0	SM5310B-14	#
Turbidity	50	NTU	0.30	SM2130B-2011	#

Detected Results Summary

Client Sample ID	CWMP008W	Collected	04/18/2024 13:28
Lab Sample ID	3355780004	Lab Receipt	04/18/2024 16:55

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	2.21	Feet		Field	#
Dissolved Oxygen	0.17	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	422.30	Feet		Field	#
Flow Rate	1.09	gal/min		Field	#
Ground Water Elevation	420.09	ft/MSL		Field	#
Oxidation-Reduction Potential	-12	mV		Field	#
pH, Field (SM4500B)	6.07	pH_Units		Field	#
Sample Depth	19.00	Feet		Field	#
Specific Conductance, Field	1113	umhos/cm	1	Field	#
Temperature	12.94	Deg. C		Field	#
Total Well Depth	22.80	Feet		Field	#
Volume in Water Column	3.29	Gallons		Field	#
Water Level After Purge	13.70	Feet		Field	#
Well Volumes Purged	6.62	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.13	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.13	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	57.7	mg/L	0.11	SW846 6020A	#
Calcium, Total	57.6	mg/L	0.11	SW846 6020A	#
Cobalt, Total	0.028	mg/L	0.0056	SW846 6020A	#
Iron, Dissolved	21.0	mg/L	0.056	SW846 6020A	#
Iron, Total	21.2	mg/L	0.056	SW846 6020A	#
Magnesium, Dissolved	29.7	mg/L	0.11	SW846 6020A	#
Magnesium, Total	28.9	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	15.4	mg/L	0.56	SW846 6020A	#
Manganese, Total	14.4	mg/L	0.0056	SW846 6020A	#
Nickel, Total	0.020	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	7.8	mg/L	0.11	SW846 6020A	#
Potassium, Total	7.6	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	31.9	mg/L	0.11	SW846 6020A	#
Sodium, Total	30.6	mg/L	0.11	SW846 6020A	#
VOLATILE ORGANICS					
1,1-Dichloroethane	2.2	ug/L	1.0	SW846 8260B	#
1,2-Dichlorobenzene	1.4	ug/L	1.0	SW846 8260B	#
1,4-Dichlorobenzene	9.8	ug/L	1.0	SW846 8260B	#
Benzene	2.2	ug/L	1.0	SW846 8260B	#
Chlorobenzene	8.3	ug/L	1.0	SW846 8260B	#
Chloroethane	7.1	ug/L	1.0	SW846 8260B	#
Dichlorodifluoromethane	2.4	ug/L	1.0	SW846 8260B	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	341	mg/L	5	SM2320B-2011	#
Alkalinity, Total	341	mg/L	5	SM2320B-2011	#

Detected Results Summary

Sample - CWMP008W (cont.)

Compound	Result	Units	RDL	Method	Flag
WET CHEMISTRY (cont.)					
Ammonia-N, Low Level	5.27	mg/L	0.50	SM 4500-NH3G	#
Chemical Oxygen Demand (COD)	23	mg/L	15	EPA 410.4	#
Chloride	26.1	mg/L	2.0	EPA 300.0	#
pH	7.86	pH_Units		S4500HB-11	#
Specific Conductance	730	umhos/cm	5	SM2510B-2011	#
Sulfate	6.3	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	412	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	7.7	mg/L	0.50	SM5310B-14	#
Turbidity	19	NTU	0.30	SM2130B-2011	#

Detected Results Summary

Client Sample ID	CWMP004W	Collected	04/18/2024 15:40
Lab Sample ID	3355780005	Lab Receipt	04/18/2024 16:55

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Depth to Water Level	55.83	Feet		Field	#
Dissolved Oxygen	6.14	mg/L	0.01	Field	#
Elev Top MW Casing above MSL	529.53	Feet		Field	#
Flow Rate	2.68	gal/min		Field	#
Ground Water Elevation	473.70	ft/MSL		Field	#
Oxidation-Reduction Potential	304	mV		Field	#
pH, Field (SM4500B)	5.66	pH_Units		Field	#
Sample Depth	130.00	Feet		Field	#
Specific Conductance, Field	406	umhos/cm	1	Field	#
Temperature	14.26	Deg. C		Field	#
Total Well Depth	140.00	Feet		Field	#
Volume in Water Column	123.73	Gallons		Field	#
Water Level After Purge	65.15	Feet		Field	#
Well Volumes Purged	2.06	Vol		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.026	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.026	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	20.1	mg/L	0.11	SW846 6020A	#
Calcium, Total	20.5	mg/L	0.11	SW846 6020A	#
Magnesium, Dissolved	7.2	mg/L	0.11	SW846 6020A	#
Magnesium, Total	7.1	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.015	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.011	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	1.4	mg/L	0.11	SW846 6020A	#
Potassium, Total	1.4	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	17.5	mg/L	0.11	SW846 6020A	#
Sodium, Total	17.3	mg/L	0.11	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	28	mg/L	5	SM2320B-2011	#
Alkalinity, Total	28	mg/L	5	SM2320B-2011	#
Chloride	52.1	mg/L	2.0	EPA 300.0	#
Nitrate-N	5.5	mg/L	1.0	EPA 300.0	#
pH	7.36	pH_Units		S4500HB-11	#
Specific Conductance	281	umhos/cm	5	SM2510B-2011	#
Sulfate	6.8	mg/L	2.0	EPA 300.0	#
Total Dissolved Solids	190	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	0.65	mg/L	0.50	SM5310B-14	#
Turbidity	2.7	NTU	0.30	SM2130B-2011	#

Results

Client Sample ID	CWMP016W	Collected	04/18/2024 10:56
Lab Sample ID	3355780001	Lab Receipt	04/18/2024 16:55

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	52.45		Feet		Field	1	04/18/2024 10:56	BGS	F
Dissolved Oxygen	9.07		mg/L	0.01	Field	1	04/18/2024 10:56	BGS	F
Elev Top MW Casing above MSL	311.97		Feet		Field	1	04/18/2024 10:56	BGS	F
Flow Rate	2.33		gal/min		Field	1	04/18/2024 10:56	BGS	F
Ground Water Elevation	259.52		ft/MSL		Field	1	04/18/2024 10:56	BGS	F
Oxidation-Reduction Potential	279		mV		Field	1	04/18/2024 10:56	BGS	F
pH, Field (SM4500B)	5.50		pH_Units		Field	1	04/18/2024 10:56	BGS	F
Sample Depth	71.00		Feet		Field	1	04/18/2024 10:56	BGS	F
Specific Conductance, Field	82		umhos/cm	1	Field	1	04/18/2024 10:56	BGS	F
Temperature	12.55		Deg. C		Field	1	04/18/2024 10:56	BGS	F
Total Well Depth	73.52		Feet		Field	1	04/18/2024 10:56	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	04/18/2024 10:56	BGS	F
Volume in Water Column	30.97		Gallons		Field	1	04/18/2024 10:56	BGS	F
Water Level After Purge	53.95		Feet		Field	1	04/18/2024 10:56	BGS	F
Well Volumes Purged	3.39		Vol		Field	1	04/18/2024 10:56	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	04/25/2024 02:27	TMP	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 11:55	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/24/2024 15:04	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	04/24/2024 11:55	MO	E1
Barium, Dissolved	0.010		mg/L	0.0056	SW846 6020A	1	04/24/2024 15:04	MO	D1
Barium, Total	0.0099		mg/L	0.0056	SW846 6020A	1	04/24/2024 11:55	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 11:55	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 15:04	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 11:55	MO	E1
Calcium, Dissolved	4.9		mg/L	0.11	SW846 6020A	1	04/24/2024 15:04	MO	D1
Calcium, Total	5.0		mg/L	0.11	SW846 6020A	1	04/24/2024 11:55	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 15:04	MO	D1
Chromium, Total	0.0033		mg/L	0.0022	SW846 6020A	1	04/24/2024 11:55	MO	E1
Cobalt, Total	0.010		mg/L	0.0056	SW846 6020A	1	04/24/2024 11:55	MO	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 15:04	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 11:55	MO	E1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/24/2024 15:04	MO	D1
Iron, Total	1.3		mg/L	0.056	SW846 6020A	1	04/24/2024 11:55	MO	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 15:04	MO	D1
Lead, Total	0.0036		mg/L	0.0022	SW846 6020A	1	04/24/2024 11:55	MO	E1
Magnesium, Dissolved	1.2		mg/L	0.11	SW846 6020A	1	04/24/2024 15:04	MO	D1
Magnesium, Total	1.2		mg/L	0.11	SW846 6020A	1	04/24/2024 11:55	MO	E1
Manganese, Dissolved	0.0089		mg/L	0.0056	SW846 6020A	1	04/24/2024 15:04	MO	D1

Results

Client Sample ID	CWMP016W	Collected	04/18/2024 10:56
Lab Sample ID	3355780001	Lab Receipt	04/18/2024 16:55

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.023		mg/L	0.0056	SW846 6020A	1	04/24/2024 11:55	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/29/2024 14:18	JSE	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	04/23/2024 13:19	JSE	E
Nickel, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 11:55	MO	E1
Potassium, Dissolved	0.50		mg/L	0.11	SW846 6020A	1	04/24/2024 15:04	MO	D1
Potassium, Total	0.49		mg/L	0.11	SW846 6020A	1	04/24/2024 11:55	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 15:04	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 11:55	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 15:04	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 11:55	MO	E1
Sodium, Dissolved	2.9	3	mg/L	0.11	SW846 6020A	1	04/24/2024 15:04	MO	D1
Sodium, Total	2.9		mg/L	0.11	SW846 6020A	1	04/24/2024 11:55	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 11:55	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 11:55	MO	E1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 15:04	MO	D1
Zinc, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 11:55	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	04/25/2024 02:27	BST	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	04/25/2024 02:27	BST	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	04/25/2024 02:27	BST	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 02:27	BST	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J

Results

Client Sample ID	CWMP016W	Collected	04/18/2024 10:56
Lab Sample ID	3355780001	Lab Receipt	04/18/2024 16:55

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	04/25/2024 02:27	BST	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 02:27	BST	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:27	BST	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	108%	62 – 133	04/25/2024 02:27	
4-Bromofluorobenzene	460-00-4	99.6%	79 – 114	04/25/2024 02:27	
Dibromofluoromethane	1868-53-7	90.9%	78 – 116	04/25/2024 02:27	
Toluene-d8	2037-26-5	95.8%	76 – 127	04/25/2024 02:27	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	13		mg/L	5	SM2320B-2011	1	04/20/2024 07:41	KMV	A
Alkalinity, Total	13	1	mg/L	5	SM2320B-2011	1	04/20/2024 07:41	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	04/24/2024 23:20	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	04/19/2024 12:00	KMS	C
Chloride	2.1		mg/L	2.0	EPA 300.0	2	04/19/2024 11:32	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	04/19/2024 11:32	J1W	A
Nitrate-N	1.2		mg/L	1.0	EPA 300.0	2	04/19/2024 11:32	J1W	A
pH	7.60	2	pH_Units		S4500HB-11	1	04/20/2024 07:41	KMV	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	04/29/2024 13:38	AKH	I
Specific Conductance	56		umhos/cm	5	SM2510B-2011	1	04/25/2024 10:11	KMV	A
Sulfate	10.5		mg/L	2.0	EPA 300.0	2	04/19/2024 11:32	J1W	A

Results

Client Sample ID	CWMP016W	Collected	04/18/2024 10:56
Lab Sample ID	3355780001	Lab Receipt	04/18/2024 16:55

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	49		mg/L	25	SM2540C-15	1	04/24/2024 16:25	RAG	A
Total Organic Carbon (TOC)	0.82		mg/L	0.50	SM5310B-14	1	04/23/2024 03:25	PAG	G
Turbidity	22		NTU	0.30	SM2130B-2011	1	04/19/2024 10:25	NPF	A

Results

Client Sample ID	CWMP010W	Collected	04/18/2024 11:40
Lab Sample ID	3355780002	Lab Receipt	04/18/2024 16:55

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	8.51		Feet		Field	1	04/18/2024 11:40	BGS	F
Dissolved Oxygen	7.98		mg/L	0.01	Field	1	04/18/2024 11:40	BGS	F
Elev Top MW Casing above MSL	360.90		Feet		Field	1	04/18/2024 11:40	BGS	F
Flow Rate	0.47		gal/min		Field	1	04/18/2024 11:40	BGS	F
Ground Water Elevation	352.39		ft/MSL		Field	1	04/18/2024 11:40	BGS	F
Oxidation-Reduction Potential	252		mV		Field	1	04/18/2024 11:40	BGS	F
pH, Field (SM4500B)	6.29		pH_Units		Field	1	04/18/2024 11:40	BGS	F
Sample Depth	17.00		Feet		Field	1	04/18/2024 11:40	BGS	F
Specific Conductance, Field	673		umhos/cm	1	Field	1	04/18/2024 11:40	BGS	F
Temperature	12.87		Deg. C		Field	1	04/18/2024 11:40	BGS	F
Total Well Depth	19.60		Feet		Field	1	04/18/2024 11:40	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	04/18/2024 11:40	BGS	F
Volume in Water Column	7.21		Gallons		Field	1	04/18/2024 11:40	BGS	F
Water Level After Purge	10.12		Feet		Field	1	04/18/2024 11:40	BGS	F
Well Volumes Purged	0.98		Vol		Field	1	04/18/2024 11:40	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	04/25/2024 02:48	TMP	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:09	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/24/2024 15:06	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	04/24/2024 12:09	MO	E1
Barium, Dissolved	0.029		mg/L	0.0056	SW846 6020A	1	04/24/2024 15:06	MO	D1
Barium, Total	0.029		mg/L	0.0056	SW846 6020A	1	04/24/2024 12:09	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 12:09	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 15:06	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 12:09	MO	E1
Calcium, Dissolved	22.4		mg/L	0.11	SW846 6020A	1	04/24/2024 15:06	MO	D1
Calcium, Total	22.2		mg/L	0.11	SW846 6020A	1	04/24/2024 12:09	MO	E1
Chromium, Dissolved	0.0026		mg/L	0.0022	SW846 6020A	1	04/24/2024 15:06	MO	D1
Chromium, Total	0.0045		mg/L	0.0022	SW846 6020A	1	04/24/2024 12:09	MO	E1
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 12:09	MO	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 15:06	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 12:09	MO	E1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/24/2024 15:06	MO	D1
Iron, Total	0.070		mg/L	0.056	SW846 6020A	1	04/24/2024 12:09	MO	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 15:06	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:09	MO	E1
Magnesium, Dissolved	17.8		mg/L	0.11	SW846 6020A	1	04/24/2024 15:06	MO	D1
Magnesium, Total	17.5		mg/L	0.11	SW846 6020A	1	04/24/2024 12:09	MO	E1
Manganese, Dissolved	0.0086		mg/L	0.0056	SW846 6020A	1	04/24/2024 15:06	MO	D1

Results

Client Sample ID	CWMP010W	Collected	04/18/2024 11:40
Lab Sample ID	3355780002	Lab Receipt	04/18/2024 16:55

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.021		mg/L	0.0056	SW846 6020A	1	04/24/2024 12:09	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/29/2024 14:20	JSE	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	04/23/2024 13:20	JSE	E
Nickel, Total	0.012		mg/L	0.0056	SW846 6020A	1	04/24/2024 12:09	MO	E1
Potassium, Dissolved	3.9		mg/L	0.11	SW846 6020A	1	04/24/2024 15:06	MO	D1
Potassium, Total	3.9		mg/L	0.11	SW846 6020A	1	04/24/2024 12:09	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 15:06	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 12:09	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 15:06	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:09	MO	E1
Sodium, Dissolved	44.5	3	mg/L	0.11	SW846 6020A	1	04/24/2024 15:06	MO	D1
Sodium, Total	44.3		mg/L	0.11	SW846 6020A	1	04/24/2024 12:09	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 12:09	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:09	MO	E1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 15:06	MO	D1
Zinc, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 12:09	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
1,1-Dichloroethene	ND	ND,5,6	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	04/25/2024 02:48	BST	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	04/25/2024 02:48	BST	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	04/25/2024 02:48	BST	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 02:48	BST	J
3-Chloro-1-propene	ND	ND,4	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J

Results

Client Sample ID	CWMP010W	Collected	04/18/2024 11:40
Lab Sample ID	3355780002	Lab Receipt	04/18/2024 16:55

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	04/25/2024 02:48	BST	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 02:48	BST	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 02:48	BST	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	116%	62 – 133	04/25/2024 02:48	
4-Bromofluorobenzene	460-00-4	91.4%	79 – 114	04/25/2024 02:48	
Dibromofluoromethane	1868-53-7	103%	78 – 116	04/25/2024 02:48	
Toluene-d8	2037-26-5	94.9%	76 – 127	04/25/2024 02:48	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	97		mg/L	5	SM2320B-2011	1	04/24/2024 18:11	KMV	A
Alkalinity, Total	97	1	mg/L	5	SM2320B-2011	1	04/20/2024 07:52	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	04/24/2024 22:32	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	04/19/2024 12:00	KMS	C
Chloride	62.4		mg/L	2.0	EPA 300.0	2	04/19/2024 11:44	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	04/19/2024 11:44	J1W	A
Nitrate-N	5.9		mg/L	1.0	EPA 300.0	2	04/19/2024 11:44	J1W	A
pH	7.99	2	pH_Units		S4500HB-11	1	04/20/2024 07:52	KMV	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	04/29/2024 19:46	AKH	I
Specific Conductance	469		umhos/cm	5	SM2510B-2011	1	04/25/2024 10:11	KMV	A
Sulfate	22.6		mg/L	2.0	EPA 300.0	2	04/19/2024 11:44	J1W	A

Results

Client Sample ID	CWMP010W	Collected	04/18/2024 11:40
Lab Sample ID	3355780002	Lab Receipt	04/18/2024 16:55

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	254		mg/L	25	SM2540C-15	1	04/24/2024 16:25	RAG	A
Total Organic Carbon (TOC)	2.1		mg/L	0.50	SM5310B-14	1	04/23/2024 03:25	PAG	G
Turbidity	0.80		NTU	0.30	SM2130B-2011	1	04/19/2024 10:25	NPF	A

Results

Client Sample ID	CWMP009W	Collected	04/18/2024 12:25
Lab Sample ID	3355780003	Lab Receipt	04/18/2024 16:55

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	8.95		Feet		Field	1	04/18/2024 12:25	BGS	F
Dissolved Oxygen	0.07		mg/L	0.01	Field	1	04/18/2024 12:25	BGS	F
Elev Top MW Casing above MSL	404.20		Feet		Field	1	04/18/2024 12:25	BGS	F
Flow Rate	1.54		gal/min		Field	1	04/18/2024 12:25	BGS	F
Ground Water Elevation	395.25		ft/MSL		Field	1	04/18/2024 12:25	BGS	F
Oxidation-Reduction Potential	-38		mV		Field	1	04/18/2024 12:25	BGS	F
pH, Field (SM4500B)	6.09		pH_Units		Field	1	04/18/2024 12:25	BGS	F
Sample Depth	16.00		Feet		Field	1	04/18/2024 12:25	BGS	F
Specific Conductance, Field	4322		umhos/cm	1	Field	1	04/18/2024 12:25	BGS	F
Temperature	11.47		Deg. C		Field	1	04/18/2024 12:25	BGS	F
Total Well Depth	19.70		Feet		Field	1	04/18/2024 12:25	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	04/18/2024 12:25	BGS	F
Volume in Water Column	6.99		Gallons		Field	1	04/18/2024 12:25	BGS	F
Water Level After Purge	11.09		Feet		Field	1	04/18/2024 12:25	BGS	F
Well Volumes Purged	4.41		Vol		Field	1	04/18/2024 12:25	BGS	F

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:11	MO	E1
Arsenic, Dissolved	0.0047		mg/L	0.0030	SW846 6020A	1	05/01/2024 10:51	MO	D1
Arsenic, Total	0.0042		mg/L	0.0033	SW846 6020A	1	04/24/2024 12:11	MO	E1
Barium, Dissolved	0.85		mg/L	0.0056	SW846 6020A	1	05/01/2024 10:51	MO	D1
Barium, Total	0.86		mg/L	0.0056	SW846 6020A	1	04/24/2024 12:11	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 12:11	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/01/2024 10:51	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 12:11	MO	E1
Calcium, Dissolved	175		mg/L	11.0	SW846 6020A	100	05/01/2024 12:09	MO	D1
Calcium, Total	161		mg/L	0.11	SW846 6020A	1	04/24/2024 12:11	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:51	MO	D1
Chromium, Total	0.0039		mg/L	0.0022	SW846 6020A	1	04/24/2024 12:11	MO	E1
Cobalt, Total	0.063		mg/L	0.0056	SW846 6020A	1	04/24/2024 12:11	MO	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:51	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 12:11	MO	E1
Iron, Dissolved	35.6		mg/L	0.056	SW846 6020A	1	05/01/2024 10:51	MO	D1
Iron, Total	34.2		mg/L	0.056	SW846 6020A	1	04/24/2024 12:11	MO	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:51	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:11	MO	E1
Magnesium, Dissolved	91.0		mg/L	0.11	SW846 6020A	1	05/01/2024 10:51	MO	D1
Magnesium, Total	85.1		mg/L	0.11	SW846 6020A	1	04/24/2024 12:11	MO	E1
Manganese, Dissolved	13.6		mg/L	0.56	SW846 6020A	100	05/01/2024 12:09	MO	D1
Manganese, Total	13.1		mg/L	0.56	SW846 6020A	100	04/24/2024 12:48	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/29/2024 14:21	JSE	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	04/23/2024 13:21	JSE	E
Nickel, Total	0.11		mg/L	0.0056	SW846 6020A	1	04/24/2024 12:11	MO	E1
Potassium, Dissolved	34.1		mg/L	0.11	SW846 6020A	1	05/01/2024 10:51	MO	D1
Potassium, Total	32.6		mg/L	0.11	SW846 6020A	1	04/24/2024 12:11	MO	E1

Results

Client Sample ID	CWMP009W	Collected	04/18/2024 12:25
Lab Sample ID	3355780003	Lab Receipt	04/18/2024 16:55

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:51	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 12:11	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:51	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:11	MO	E1
Sodium, Dissolved	213	7	mg/L	11.0	SW846 6020A	100	05/01/2024 12:09	MO	D1
Sodium, Total	213		mg/L	11.0	SW846 6020A	100	04/24/2024 12:48	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 12:11	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:11	MO	E1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:51	MO	D1
Zinc, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 12:11	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
1,1-Dichloroethane	1.2		ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	04/25/2024 03:08	BST	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	04/25/2024 03:08	BST	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
1,2-Dichlorobenzene	2.2		ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
1,4-Dichlorobenzene	10.4		ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	04/25/2024 03:08	BST	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 03:08	BST	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Benzene	2.2		ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Chlorobenzene	16.4		ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Chloroethane	8.5		ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J

Results

Client Sample ID	CWMP009W	Collected	04/18/2024 12:25
Lab Sample ID	3355780003	Lab Receipt	04/18/2024 16:55

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	04/25/2024 03:08	BST	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 03:08	BST	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:08	BST	J

TICs by Library Search

Compound	CAS No	Result	Units	Qualifiers
Isobutane	75-28-5	10.6	ug/L	J,N
Silanol, trimethyl-	1066-40-6	13.7	ug/L	J,N

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	112%	62 – 133	04/25/2024 03:08	
4-Bromofluorobenzene	460-00-4	108%	79 – 114	04/25/2024 03:08	
Dibromofluoromethane	1868-53-7	100%	78 – 116	04/25/2024 03:08	
Toluene-d8	2037-26-5	101%	76 – 127	04/25/2024 03:08	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	546		mg/L	50	SM2320B-2011	10	04/24/2024 18:22	KMV	A
Alkalinity, Total	546	1	mg/L	50	SM2320B-2011	10	04/24/2024 18:22	KMV	A
Ammonia-N, Low Level	30.7		mg/L	1.00	SM 4500-NH3G	10	04/26/2024 14:25	NML	C
Chemical Oxygen Demand (COD)	109		mg/L	15	EPA 410.4	1	04/19/2024 12:00	KMS	C
Chloride	671		mg/L	10.0	EPA 300.0	10	04/24/2024 09:02	J1W	A
Fluoride	ND	ND	mg/L	0.50	EPA 300.0	5	04/19/2024 11:55	J1W	A
Nitrate-N	ND	ND	mg/L	2.5	EPA 300.0	5	04/19/2024 11:55	J1W	A
pH	7.62	2	pH_Units		S4500HB-11	1	04/20/2024 08:05	KMV	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	04/29/2024 13:34	AKH	I
Specific Conductance	3290		umhos/cm	50	SM2510B-2011	10	04/25/2024 10:11	KMV	A
Sulfate	6.7		mg/L	5.0	EPA 300.0	5	04/19/2024 11:55	J1W	A

Results

Client Sample ID	CWMP009W	Collected	04/18/2024 12:25
Lab Sample ID	3355780003	Lab Receipt	04/18/2024 16:55

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	1650		mg/L	25	SM2540C-15	1	04/24/2024 16:25	RAG	A
Total Organic Carbon (TOC)	36.4		mg/L	5.0	SM5310B-14	10	04/24/2024 21:31	PAG	G
Turbidity	50		NTU	0.30	SM2130B-2011	1	04/19/2024 10:25	NPF	A

Results

Client Sample ID	CWMP008W	Collected	04/18/2024 13:28
Lab Sample ID	3355780004	Lab Receipt	04/18/2024 16:55

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	2.21		Feet		Field	1	04/18/2024 13:28	BGS	F
Dissolved Oxygen	0.17		mg/L	0.01	Field	1	04/18/2024 13:28	BGS	F
Elev Top MW Casing above MSL	422.30		Feet		Field	1	04/18/2024 13:28	BGS	F
Flow Rate	1.09		gal/min		Field	1	04/18/2024 13:28	BGS	F
Ground Water Elevation	420.09		ft/MSL		Field	1	04/18/2024 13:28	BGS	F
Oxidation-Reduction Potential	-12		mV		Field	1	04/18/2024 13:28	BGS	F
pH, Field (SM4500B)	6.07		pH_Units		Field	1	04/18/2024 13:28	BGS	F
Sample Depth	19.00		Feet		Field	1	04/18/2024 13:28	BGS	F
Specific Conductance, Field	1113		umhos/cm	1	Field	1	04/18/2024 13:28	BGS	F
Temperature	12.94		Deg. C		Field	1	04/18/2024 13:28	BGS	F
Total Well Depth	22.80		Feet		Field	1	04/18/2024 13:28	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	04/18/2024 13:28	BGS	F
Volume in Water Column	3.29		Gallons		Field	1	04/18/2024 13:28	BGS	F
Water Level After Purge	13.70		Feet		Field	1	04/18/2024 13:28	BGS	F
Well Volumes Purged	6.62		Vol		Field	1	04/18/2024 13:28	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	04/25/2024 03:28	TMP	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:13	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/01/2024 10:53	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	04/24/2024 12:13	MO	E1
Barium, Dissolved	0.13		mg/L	0.0056	SW846 6020A	1	05/01/2024 10:53	MO	D1
Barium, Total	0.13		mg/L	0.0056	SW846 6020A	1	04/24/2024 12:13	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 12:13	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/01/2024 10:53	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 12:13	MO	E1
Calcium, Dissolved	57.7	8	mg/L	0.11	SW846 6020A	1	05/01/2024 10:53	MO	D1
Calcium, Total	57.6		mg/L	0.11	SW846 6020A	1	04/24/2024 12:13	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:53	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:13	MO	E1
Cobalt, Total	0.028		mg/L	0.0056	SW846 6020A	1	04/24/2024 12:13	MO	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:53	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 12:13	MO	E1
Iron, Dissolved	21.0	8	mg/L	0.056	SW846 6020A	1	05/01/2024 10:53	MO	D1
Iron, Total	21.2		mg/L	0.056	SW846 6020A	1	04/24/2024 12:13	MO	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:53	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:13	MO	E1
Magnesium, Dissolved	29.7	8	mg/L	0.11	SW846 6020A	1	05/01/2024 10:53	MO	D1
Magnesium, Total	28.9		mg/L	0.11	SW846 6020A	1	04/24/2024 12:13	MO	E1
Manganese, Dissolved	15.4	8	mg/L	0.56	SW846 6020A	100	05/01/2024 12:11	MO	D1

Results

Client Sample ID	CWMP008W	Collected	04/18/2024 13:28
Lab Sample ID	3355780004	Lab Receipt	04/18/2024 16:55

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	14.4		mg/L	0.0056	SW846 6020A	1	04/24/2024 12:13	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/29/2024 14:22	JSE	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	04/23/2024 13:22	JSE	E
Nickel, Total	0.020		mg/L	0.0056	SW846 6020A	1	04/24/2024 12:13	MO	E1
Potassium, Dissolved	7.8		mg/L	0.11	SW846 6020A	1	05/01/2024 10:53	MO	D1
Potassium, Total	7.6		mg/L	0.11	SW846 6020A	1	04/24/2024 12:13	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:53	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 12:13	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:53	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:13	MO	E1
Sodium, Dissolved	31.9	8	mg/L	0.11	SW846 6020A	1	05/01/2024 10:53	MO	D1
Sodium, Total	30.6		mg/L	0.11	SW846 6020A	1	04/24/2024 12:13	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 12:13	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:13	MO	E1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:53	MO	D1
Zinc, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 12:13	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
1,1-Dichloroethane	2.2		ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	04/25/2024 03:28	BST	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	04/25/2024 03:28	BST	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
1,2-Dichlorobenzene	1.4		ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
1,4-Dichlorobenzene	9.8		ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	04/25/2024 03:28	BST	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 03:28	BST	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Benzene	2.2		ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J

Results

Client Sample ID	CWMP008W	Collected	04/18/2024 13:28
Lab Sample ID	3355780004	Lab Receipt	04/18/2024 16:55

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	8.3		ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Chloroethane	7.1		ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Dichlorodifluoromethane	2.4		ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	04/25/2024 03:28	BST	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 03:28	BST	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:28	BST	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	117%	62 – 133	04/25/2024 03:28	
4-Bromofluorobenzene	460-00-4	100%	79 – 114	04/25/2024 03:28	
Dibromofluoromethane	1868-53-7	101%	78 – 116	04/25/2024 03:28	
Toluene-d8	2037-26-5	102%	76 – 127	04/25/2024 03:28	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	341		mg/L	5	SM2320B-2011	1	04/20/2024 08:18	KMV	A
Alkalinity, Total	341	1	mg/L	5	SM2320B-2011	1	04/20/2024 08:18	KMV	A
Ammonia-N, Low Level	5.27		mg/L	0.50	SM 4500-NH3G	5	04/24/2024 22:53	NML	C
Chemical Oxygen Demand (COD)	23		mg/L	15	EPA 410.4	1	04/22/2024 13:00	KMS	C
Chloride	26.1		mg/L	2.0	EPA 300.0	2	04/19/2024 12:07	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	04/19/2024 12:07	J1W	A
Nitrate-N	ND	ND	mg/L	1.0	EPA 300.0	2	04/19/2024 12:07	J1W	A
pH	7.86	2	pH_Units		S4500HB-11	1	04/20/2024 08:18	KMV	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	05/08/2024 14:40	AKH	I
Specific Conductance	730		umhos/cm	5	SM2510B-2011	1	04/25/2024 10:11	KMV	A
Sulfate	6.3		mg/L	2.0	EPA 300.0	2	04/19/2024 12:07	J1W	A

Results

Client Sample ID	CWMP008W	Collected	04/18/2024 13:28
Lab Sample ID	3355780004	Lab Receipt	04/18/2024 16:55

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	412		mg/L	25	SM2540C-15	1	04/24/2024 16:25	RAG	A
Total Organic Carbon (TOC)	7.7		mg/L	0.50	SM5310B-14	1	04/23/2024 03:25	PAG	G
Turbidity	19		NTU	0.30	SM2130B-2011	1	04/19/2024 10:25	NPF	A

Results

Client Sample ID	CWMP004W	Collected	04/18/2024 15:40
Lab Sample ID	3355780005	Lab Receipt	04/18/2024 16:55

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Depth to Water Level	55.83		Feet		Field	1	04/18/2024 15:40	BGS	F
Dissolved Oxygen	6.14		mg/L	0.01	Field	1	04/18/2024 15:40	BGS	F
Elev Top MW Casing above MSL	529.53		Feet		Field	1	04/18/2024 15:40	BGS	F
Flow Rate	2.68		gal/min		Field	1	04/18/2024 15:40	BGS	F
Ground Water Elevation	473.70		ft/MSL		Field	1	04/18/2024 15:40	BGS	F
Oxidation-Reduction Potential	304		mV		Field	1	04/18/2024 15:40	BGS	F
pH, Field (SM4500B)	5.66		pH_Units		Field	1	04/18/2024 15:40	BGS	F
Sample Depth	130.00		Feet		Field	1	04/18/2024 15:40	BGS	F
Specific Conductance, Field	406		umhos/cm	1	Field	1	04/18/2024 15:40	BGS	F
Temperature	14.26		Deg. C		Field	1	04/18/2024 15:40	BGS	F
Total Well Depth	140.00		Feet		Field	1	04/18/2024 15:40	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	04/18/2024 15:40	BGS	F
Volume in Water Column	123.73		Gallons		Field	1	04/18/2024 15:40	BGS	F
Water Level After Purge	65.15		Feet		Field	1	04/18/2024 15:40	BGS	F
Well Volumes Purged	2.06		Vol		Field	1	04/18/2024 15:40	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	04/25/2024 03:49	TMP	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:15	MO	E1
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	05/01/2024 10:59	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	04/24/2024 12:15	MO	E1
Barium, Dissolved	0.026		mg/L	0.0056	SW846 6020A	1	05/01/2024 10:59	MO	D1
Barium, Total	0.026		mg/L	0.0056	SW846 6020A	1	04/24/2024 12:15	MO	E1
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 12:15	MO	E1
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	05/01/2024 10:59	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 12:15	MO	E1
Calcium, Dissolved	20.1		mg/L	0.11	SW846 6020A	1	05/01/2024 10:59	MO	D1
Calcium, Total	20.5		mg/L	0.11	SW846 6020A	1	04/24/2024 12:15	MO	E1
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:59	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:15	MO	E1
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 12:15	MO	E1
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:59	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 12:15	MO	E1
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	05/01/2024 10:59	MO	D1
Iron, Total	ND	ND	mg/L	0.056	SW846 6020A	1	04/24/2024 12:15	MO	E1
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:59	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:15	MO	E1
Magnesium, Dissolved	7.2		mg/L	0.11	SW846 6020A	1	05/01/2024 10:59	MO	D1
Magnesium, Total	7.1		mg/L	0.11	SW846 6020A	1	04/24/2024 12:15	MO	E1
Manganese, Dissolved	0.015		mg/L	0.0056	SW846 6020A	1	05/01/2024 10:59	MO	D1

Results

Client Sample ID	CWMP004W	Collected	04/18/2024 15:40
Lab Sample ID	3355780005	Lab Receipt	04/18/2024 16:55

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Manganese, Total	0.011		mg/L	0.0056	SW846 6020A	1	04/24/2024 12:15	MO	E1
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/29/2024 14:23	JSE	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	04/23/2024 13:23	JSE	E
Nickel, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 12:15	MO	E1
Potassium, Dissolved	1.4		mg/L	0.11	SW846 6020A	1	05/01/2024 10:59	MO	D1
Potassium, Total	1.4		mg/L	0.11	SW846 6020A	1	04/24/2024 12:15	MO	E1
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:59	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 12:15	MO	E1
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	05/01/2024 10:59	MO	D1
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:15	MO	E1
Sodium, Dissolved	17.5		mg/L	0.11	SW846 6020A	1	05/01/2024 10:59	MO	D1
Sodium, Total	17.3		mg/L	0.11	SW846 6020A	1	04/24/2024 12:15	MO	E1
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/24/2024 12:15	MO	E1
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/24/2024 12:15	MO	E1
Zinc, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	05/01/2024 10:59	MO	D1
Zinc, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/24/2024 12:15	MO	E1

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	04/25/2024 03:49	BST	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	04/25/2024 03:49	BST	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	04/25/2024 03:49	BST	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 03:49	BST	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J

Results

Client Sample ID	CWMP004W	Collected	04/18/2024 15:40
Lab Sample ID	3355780005	Lab Receipt	04/18/2024 16:55

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	04/25/2024 03:49	BST	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 03:49	BST	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 03:49	BST	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	04/25/2024 03:49	
4-Bromofluorobenzene	460-00-4	92.3%	79 – 114	04/25/2024 03:49	
Dibromofluoromethane	1868-53-7	95.1%	78 – 116	04/25/2024 03:49	
Toluene-d8	2037-26-5	94.4%	76 – 127	04/25/2024 03:49	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	28		mg/L	5	SM2320B-2011	1	04/20/2024 08:30	KMV	A
Alkalinity, Total	28	1	mg/L	5	SM2320B-2011	1	04/20/2024 08:30	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	04/24/2024 22:41	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	04/22/2024 13:00	KMS	C
Chloride	52.1		mg/L	2.0	EPA 300.0	2	04/19/2024 12:53	J1W	A
Fluoride	ND	ND	mg/L	0.20	EPA 300.0	2	04/19/2024 12:53	J1W	A
Nitrate-N	5.5		mg/L	1.0	EPA 300.0	2	04/19/2024 12:53	J1W	A
pH	7.36	2	pH_Units		S4500HB-11	1	04/20/2024 08:30	KMV	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	04/29/2024 13:42	AKH	I
Specific Conductance	281		umhos/cm	5	SM2510B-2011	1	04/25/2024 10:11	KMV	A
Sulfate	6.8		mg/L	2.0	EPA 300.0	2	04/19/2024 12:53	J1W	A

Results

Client Sample ID	CWMP004W	Collected	04/18/2024 15:40
Lab Sample ID	3355780005	Lab Receipt	04/18/2024 16:55

WET CHEMISTRY (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Total Dissolved Solids	190		mg/L	25	SM2540C-15	1	04/24/2024 16:25	RAG	A
Total Organic Carbon (TOC)	0.65		mg/L	0.50	SM5310B-14	1	04/23/2024 03:25	PAG	G
Turbidity	2.7		NTU	0.30	SM2130B-2011	1	04/19/2024 10:25	NPF	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3355780001	CWMP016W	Field	N/A	
		SW846 6020A	SW846 3015A	
		SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		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 9066	SW846 9066	
3355780002	CWMP010W	Field	N/A	
		SW846 6020A	SW846 3015A	
		SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		S4500HB-11	N/A	
		SM 4500-NH3G	N/A	
		SM2130B-2011	N/A	
		SM2320B-2011	N/A	
		SM2320B-2011	N/A	
		SM2510B-2011	N/A	
		SM2540C-15	N/A	
		SM5310B-14	N/A	
		SW846 9066	SW846 9066	
3355780003	CWMP009W	Field	N/A	
		SW846 6020A	SW846 3015A	
		SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		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 9066	SW846 9066	

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3355780004	CWMP008W	Field	N/A	
		SW846 6020A	SW846 3015A	
		SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		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 9066	SW846 9066	
3355780005	CWMP004W	Field	N/A	
		SW846 6020A	SW846 3015A	
		SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		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 9066	SW846 9066	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3355780001	CWMP016W	N/A	N/A	N/A		Field	1190854
		SW846 3015A	1183798	04/19/2024 01:24	ANN	SW846 6020A	1187908
		SW846 3015A	1183801	04/22/2024 02:58	ANN	SW846 6020A	1187917
		SW846 7470A	1192250	04/29/2024 11:00	JSE	SW846 7470A	1192313
		SW846 7470A	1186662	04/23/2024 09:22	JSE	SW846 7470A	1187337
		N/A	N/A	N/A		Lib Search VOC	1192709
		N/A	N/A	N/A		SW846 8260B	1188221
		N/A	N/A	N/A		EPA 300.0	1184217
		N/A	N/A	N/A		EPA 410.4	1184311
		N/A	N/A	N/A		S4500HB-11	1184736
		N/A	N/A	N/A		SM 4500-NH3G	1187343
		N/A	N/A	N/A		SM2130B-2011	1184222
		N/A	N/A	N/A		SM2320B-2011	1184736
		N/A	N/A	N/A		SM2510B-2011	1188629
		N/A	N/A	N/A		SM2540C-15	1187248
		N/A	N/A	N/A		SM5310B-14	1186622
		SW846 9066	1190839	04/26/2024 13:52	AKH	SW846 9066	1190847
3355780002	CWMP010W	N/A	N/A	N/A		Field	1190854
		SW846 3015A	1183798	04/19/2024 01:24	ANN	SW846 6020A	1187908
		SW846 3015A	1183801	04/22/2024 02:58	ANN	SW846 6020A	1187911
		SW846 7470A	1192250	04/29/2024 11:00	JSE	SW846 7470A	1192313
		SW846 7470A	1186662	04/23/2024 09:22	JSE	SW846 7470A	1187337
		N/A	N/A	N/A		Lib Search VOC	1192709
		N/A	N/A	N/A		SW846 8260B	1188221
		N/A	N/A	N/A		EPA 300.0	1184217
		N/A	N/A	N/A		EPA 410.4	1184311
		N/A	N/A	N/A		S4500HB-11	1184736
		N/A	N/A	N/A		SM 4500-NH3G	1187343
		N/A	N/A	N/A		SM2130B-2011	1184222
		N/A	N/A	N/A		SM2320B-2011	1184736
		N/A	N/A	N/A		SM2320B-2011	1186643
		N/A	N/A	N/A		SM2510B-2011	1188629
		N/A	N/A	N/A		SM2540C-15	1187248
		N/A	N/A	N/A		SM5310B-14	1186622
		SW846 9066	1190839	04/26/2024 13:52	AKH	SW846 9066	1190847
3355780003	CWMP009W	N/A	N/A	N/A		Field	1190854
		SW846 3015A	1186408	04/23/2024 02:55	ANN	SW846 6020A	1192817
		SW846 3015A	1183801	04/22/2024 02:58	ANN	SW846 6020A	1187917
		SW846 7470A	1192250	04/29/2024 11:00	JSE	SW846 7470A	1192313
		SW846 7470A	1186662	04/23/2024 09:22	JSE	SW846 7470A	1187337
		N/A	N/A	N/A		SW846 8260B	1188221
		N/A	N/A	N/A		EPA 300.0	1184217
		N/A	N/A	N/A		EPA 300.0	1187209
		N/A	N/A	N/A		EPA 410.4	1184311
		N/A	N/A	N/A		S4500HB-11	1184736
		N/A	N/A	N/A		SM 4500-NH3G	1189708
		N/A	N/A	N/A		SM2130B-2011	1184222
		N/A	N/A	N/A		SM2320B-2011	1186643
		N/A	N/A	N/A		SM2510B-2011	1188629
		N/A	N/A	N/A		SM2540C-15	1187248
		N/A	N/A	N/A		SM5310B-14	1188020
		SW846 9066	1190839	04/26/2024 13:52	AKH	SW846 9066	1190847

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3355780004	CWMP008W	N/A	N/A	N/A		Field	1190854
		SW846 3015A	1186408	04/23/2024 02:55	ANN	SW846 6020A	1192817
		SW846 3015A	1183801	04/22/2024 02:58	ANN	SW846 6020A	1187917
		SW846 7470A	1192250	04/29/2024 11:00	JSE	SW846 7470A	1192313
		SW846 7470A	1186662	04/23/2024 09:22	JSE	SW846 7470A	1187337
		N/A	N/A	N/A		Lib Search VOC	1192709
		N/A	N/A	N/A		SW846 8260B	1188221
		N/A	N/A	N/A		EPA 300.0	1184217
		N/A	N/A	N/A		EPA 410.4	1186530
		N/A	N/A	N/A		S4500HB-11	1184736
		N/A	N/A	N/A		SM 4500-NH3G	1187343
		N/A	N/A	N/A		SM2130B-2011	1184222
		N/A	N/A	N/A		SM2320B-2011	1184736
		N/A	N/A	N/A		SM2510B-2011	1188629
		N/A	N/A	N/A		SM2540C-15	1187248
		N/A	N/A	N/A		SM5310B-14	1186622
		SW846 9066	1190839	04/26/2024 13:52	AKH	SW846 9066	1197538
3355780005	CWMP004W	N/A	N/A	N/A		Field	1190854
		SW846 3015A	1186408	04/23/2024 02:55	ANN	SW846 6020A	1192817
		SW846 3015A	1183801	04/22/2024 02:58	ANN	SW846 6020A	1187917
		SW846 7470A	1192250	04/29/2024 11:00	JSE	SW846 7470A	1192313
		SW846 7470A	1186662	04/23/2024 09:22	JSE	SW846 7470A	1187337
		N/A	N/A	N/A		Lib Search VOC	1192709
		N/A	N/A	N/A		SW846 8260B	1188221
		N/A	N/A	N/A		EPA 300.0	1184217
		N/A	N/A	N/A		EPA 410.4	1186530
		N/A	N/A	N/A		S4500HB-11	1184736
		N/A	N/A	N/A		SM 4500-NH3G	1187343
		N/A	N/A	N/A		SM2130B-2011	1184222
		N/A	N/A	N/A		SM2320B-2011	1184736
		N/A	N/A	N/A		SM2510B-2011	1188629
		N/A	N/A	N/A		SM2540C-15	1187248
		N/A	N/A	N/A		SM5310B-14	1186622
		SW846 9066	1190839	04/26/2024 13:52	AKH	SW846 9066	1190847

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

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

COC #: 3355780
ALS Quote #:
Logged By: D1G
PM: SJB
of

Client Name: Lancaster County Solid Waste MA
Address: 1299 Harrisburg Pike PO Box 4424, Lancaster PA 17604
Contact: Dan Brown
Phone#: 717-735-0193
Project Name/#: Creswell/GWMP Form 19A
Bill To: Lancaster County Solid Waste MA
Purchase Order #:
TAT [x] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? [x] dbrown@lcswma.org

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

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

ANALYSIS / METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	TOC	O-OH	8260 VOCs - Form 19A+ Subtitle D+ TICs	pH, CL, SpC, F, SO4, NO3, Tb, TDS	Alkalinity, HCO3	FM	Sample Debth for AUX Data	NH3-N, COD	Diss Metals Form 19A (field filtered)	Total Metals Form 19A+Subtitle D
	Enter Number of Containers Per Sample or Field Results Below.															
1	CWMP016W	4/18/24	1056		G	GW	2	1	2	1	1	x	x	1	1	1
2	CWMP010W	4/18/24	1140		G	GW	2	1	2	1	1	x	x	1	1	1
3	CWMP009W	4/18/24	1225		G	GW	2	1	2	1	1	x	x	1	1	1
4	CWMP008W	4/18/24	1328		G	GW	2	1	2	1	1	x	x	1	1	1
5	CWMP004W	4/18/24	1540		G	GW	2	1	2	1	1	x	x	1	1	1
6																
7																
8																
9																
10																

DPB 4/19/24

Receipt Information (completed by Receiving Lab)
Temp Taken By: NWO Therm ID: 570 WO Temp (°C) 3C
Receipt Info completed by: Temp By: NWO | WO Temp (°C): 3 | Therm ID: 570
Receipt Info Completed By: DPB
Cooler Custody Seal Intact Y N NA
Sample Custody Seal Intact Y N NA
Received on Ice Y N NA
Cooler & Samples Intact Y N
Correct Containers Provided Y N
Sample Label/COC Agree Y N
Adequate Sample Volumes Y N
CR6 Samples Filtered Y N NA
OP Samples Filtered Y N NA
VOA 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 5
Deviations? NO YES
If YES, list below:
Client contact:
Date/Tech:
Screen (uCi)
Source? Y N
Source Contact:
PWS Phone #:

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

Sample/COC Remarks

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

Cycle Sample Collector: ALS Tech / Client
Name: Ed Shadle ID:
Comments:

Date	Time		Relinquished By / Company Name		Received By / Company Name
4-18-24	1655	1	Ed Shadle ALS	2	ALS
		3		4	
		5		6	
		7		8	
		9		10	

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ]
EDDs: [ ] Excel Summary [ ] Equis [ ] Custom
Sample Disposal: Lab [x] Special [ ]
EDDS: Format Type
State Samples Collected In: [ ] NY [ ] NJ [x] PA [ ] WV [ ] FL [ ] other

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

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

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 2nd QTR 2024 GWMP FORM 19A
Workorder 3355510
Report ID 319344 on 4/30/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Apr 17, 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
3355510001	CWMP018S	Ground Water	04/17/2024 11:45	04/17/2024 15:45	BGS	Analytical Laboratory Service
3355510002	CWMP017S	Ground Water	04/17/2024 12:06	04/17/2024 15:45	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 QC sample type MS for method EPA 300.0 was outside the control limits for the analyte Chloride. The % Recovery was reported as 135 and the control limits were 80 to 120.
3	The QC sample type MSD for method EPA 300.0 was outside the control limits for the analyte Chloride. The % Recovery was reported as 128 and the control limits were 80 to 120.
4	The QC sample type MS for method EPA 300.0 was outside the control limits for the analyte Nitrate-N. The % Recovery was reported as 130 and the control limits were 80 to 120.
5	The QC sample type MSD for method EPA 300.0 was outside the control limits for the analyte Nitrate-N. The % Recovery was reported as 125 and the control limits were 80 to 120.
6	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.
7	The QC sample type MS for method EPA 300.0 was outside the control limits for the analyte Sulfate. The % Recovery was reported as 124 and the control limits were 80 to 120.
8	The QC sample type MSD for method EPA 300.0 was outside the control limits for the analyte Sulfate. The % Recovery was reported as 123 and the control limits were 80 to 120.

Detected Results Summary

Client Sample ID	CWMP018S	Collected	04/17/2024 11:45
Lab Sample ID	3355510001	Lab Receipt	04/17/2024 15:45

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Dissolved Oxygen	10.17	mg/L	0.01	Field	#
Oxidation-Reduction Potential	227	mV		Field	#
pH, Field (SM4500B)	8.37	pH_Units		Field	#
Specific Conductance, Field	2491	umhos/cm	1	Field	#
Temperature	15.47	Deg. C		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.051	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.045	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	58.5	mg/L	0.11	SW846 6020A	#
Calcium, Total	59.0	mg/L	0.11	SW846 6020A	#
Chromium, Dissolved	0.0029	mg/L	0.0022	SW846 6020A	#
Copper, Dissolved	0.011	mg/L	0.0056	SW846 6020A	#
Iron, Total	0.083	mg/L	0.056	SW846 6020A	#
Magnesium, Dissolved	63.2	mg/L	0.11	SW846 6020A	#
Magnesium, Total	64.0	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.0084	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.028	mg/L	0.0056	SW846 6020A	#
Nickel, Total	0.014	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	17.3	mg/L	0.11	SW846 6020A	#
Potassium, Total	17.3	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	191	mg/L	0.11	SW846 6020A	#
Sodium, Total	187	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.016	mg/L	0.0056	SW846 6020A	#
Zinc, Total	0.012	mg/L	0.0056	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	295	mg/L	5	SM2320B-2011	#
Alkalinity, Total	337	mg/L	5	SM2320B-2011	#
Chemical Oxygen Demand (COD)	23	mg/L	15	EPA 410.4	#
Chloride	327	mg/L	5.0	EPA 300.0	#
Nitrate-N	18.5	mg/L	2.5	EPA 300.0	#
pH	8.58	pH_Units		S4500HB-11	#
Specific Conductance	1770	umhos/cm	5	SM2510B-2011	#
Sulfate	25.3	mg/L	5.0	EPA 300.0	#
Total Dissolved Solids	962	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	7.3	mg/L	0.50	SM5310B-14	#
Turbidity	1.3	NTU	0.30	SM2130B-2011	#

Detected Results Summary

Client Sample ID	CWMP017S	Collected	04/17/2024 12:06
Lab Sample ID	3355510002	Lab Receipt	04/17/2024 15:45

Compound	Result	Units	RDL	Method	Flag
FIELD PARAMETERS					
Dissolved Oxygen	10.64	mg/L	0.01	Field	#
Oxidation-Reduction Potential	180	mV		Field	#
pH, Field (SM4500B)	8.03	pH_Units		Field	#
Specific Conductance, Field	3139	umhos/cm	1	Field	#
Temperature	17.01	Deg. C		Field	#
LIBRARY SEARCH - VOLATILES					
No TIC's Detected	.			Lib Search VOC	#
METALS					
Barium, Dissolved	0.035	mg/L	0.0056	SW846 6020A	#
Barium, Total	0.034	mg/L	0.0056	SW846 6020A	#
Calcium, Dissolved	48.9	mg/L	0.11	SW846 6020A	#
Calcium, Total	55.5	mg/L	0.11	SW846 6020A	#
Iron, Total	0.14	mg/L	0.056	SW846 6020A	#
Magnesium, Dissolved	63.1	mg/L	0.11	SW846 6020A	#
Magnesium, Total	77.7	mg/L	0.11	SW846 6020A	#
Manganese, Dissolved	0.023	mg/L	0.0056	SW846 6020A	#
Manganese, Total	0.024	mg/L	0.0056	SW846 6020A	#
Nickel, Total	0.0086	mg/L	0.0056	SW846 6020A	#
Potassium, Dissolved	12.8	mg/L	0.11	SW846 6020A	#
Potassium, Total	15.5	mg/L	0.11	SW846 6020A	#
Sodium, Dissolved	191	mg/L	0.11	SW846 6020A	#
Sodium, Total	229	mg/L	0.11	SW846 6020A	#
Zinc, Dissolved	0.018	mg/L	0.0056	SW846 6020A	#
Zinc, Total	0.022	mg/L	0.0056	SW846 6020A	#
WET CHEMISTRY					
Alkalinity, Bicarbonate	458	mg/L	50	SM2320B-2011	#
Alkalinity, Total	458	mg/L	50	SM2320B-2011	#
Chloride	397	mg/L	5.0	EPA 300.0	#
Nitrate-N	21.3	mg/L	2.5	EPA 300.0	#
pH	8.43	pH_Units		S4500HB-11	#
Specific Conductance	2120	umhos/cm	5	SM2510B-2011	#
Sulfate	27.8	mg/L	5.0	EPA 300.0	#
Total Dissolved Solids	1160	mg/L	25	SM2540C-15	#
Total Organic Carbon (TOC)	4.0	mg/L	0.50	SM5310B-14	#
Turbidity	1.5	NTU	0.30	SM2130B-2011	#

Results

Client Sample ID	CWMP018S	Collected	04/17/2024 11:45
Lab Sample ID	3355510001	Lab Receipt	04/17/2024 15:45

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dissolved Oxygen	10.17		mg/L	0.01	Field	1	04/17/2024 11:45	BGS	F
Oxidation-Reduction Potential	227		mV		Field	1	04/17/2024 11:45	BGS	F
pH, Field (SM4500B)	8.37		pH_Units		Field	1	04/17/2024 11:45	BGS	F
Specific Conductance, Field	2491		umhos/cm	1	Field	1	04/17/2024 11:45	BGS	F
Temperature	15.47		Deg. C		Field	1	04/17/2024 11:45	BGS	F
Turbidity, Field	ND	ND	NTU	1	Field	1	04/17/2024 11:45	BGS	F

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	04/25/2024 00:45	TMP	J

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:28	MO	E2
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/29/2024 11:24	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	04/29/2024 11:28	MO	E2
Barium, Dissolved	0.051		mg/L	0.0056	SW846 6020A	1	04/29/2024 11:24	MO	D1
Barium, Total	0.045		mg/L	0.0056	SW846 6020A	1	04/29/2024 11:28	MO	E2
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/29/2024 11:28	MO	E2
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/29/2024 11:24	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/29/2024 11:28	MO	E2
Calcium, Dissolved	58.5		mg/L	0.11	SW846 6020A	1	04/29/2024 11:24	MO	D1
Calcium, Total	59.0		mg/L	0.11	SW846 6020A	1	04/29/2024 11:28	MO	E2
Chromium, Dissolved	0.0029		mg/L	0.0022	SW846 6020A	1	04/29/2024 11:24	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:28	MO	E2
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 11:28	MO	E2
Copper, Dissolved	0.011		mg/L	0.0056	SW846 6020A	1	04/29/2024 11:24	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 11:28	MO	E2
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/29/2024 11:24	MO	D1
Iron, Total	0.083		mg/L	0.056	SW846 6020A	1	04/29/2024 11:28	MO	E2
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:24	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:28	MO	E2
Magnesium, Dissolved	63.2		mg/L	0.11	SW846 6020A	1	04/29/2024 11:24	MO	D1
Magnesium, Total	64.0		mg/L	0.11	SW846 6020A	1	04/29/2024 11:28	MO	E2
Manganese, Dissolved	0.0084		mg/L	0.0056	SW846 6020A	1	04/29/2024 11:24	MO	D1
Manganese, Total	0.028		mg/L	0.0056	SW846 6020A	1	04/29/2024 11:28	MO	E2
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/29/2024 14:02	JSE	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	04/19/2024 16:27	JSE	E
Nickel, Total	0.014		mg/L	0.0056	SW846 6020A	1	04/29/2024 11:28	MO	E2
Potassium, Dissolved	17.3		mg/L	0.11	SW846 6020A	1	04/29/2024 11:24	MO	D1
Potassium, Total	17.3		mg/L	0.11	SW846 6020A	1	04/29/2024 11:28	MO	E2
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 11:24	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 11:28	MO	E2
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:24	MO	D1

Results

Client Sample ID	CWMP018S	Collected	04/17/2024 11:45
Lab Sample ID	3355510001	Lab Receipt	04/17/2024 15:45

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:28	MO	E2
Sodium, Dissolved	191		mg/L	0.11	SW846 6020A	1	04/29/2024 11:24	MO	D1
Sodium, Total	187		mg/L	0.11	SW846 6020A	1	04/29/2024 11:28	MO	E2
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/29/2024 11:28	MO	E2
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:28	MO	E2
Zinc, Dissolved	0.016		mg/L	0.0056	SW846 6020A	1	04/29/2024 11:24	MO	D1
Zinc, Total	0.012		mg/L	0.0056	SW846 6020A	1	04/29/2024 11:28	MO	E2

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	04/25/2024 00:45	BST	J
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	04/25/2024 00:45	BST	J
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	04/25/2024 00:45	BST	J
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 00:45	BST	J
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J

Results

Client Sample ID	CWMP018S	Collected	04/17/2024 11:45
Lab Sample ID	3355510001	Lab Receipt	04/17/2024 15:45

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	04/25/2024 00:45	BST	J
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 00:45	BST	J
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 00:45	BST	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	110%	62 – 133	04/25/2024 00:45	
4-Bromofluorobenzene	460-00-4	103%	79 – 114	04/25/2024 00:45	
Dibromofluoromethane	1868-53-7	96.2%	78 – 116	04/25/2024 00:45	
Toluene-d8	2037-26-5	99.1%	76 – 127	04/25/2024 00:45	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	295		mg/L	5	SM2320B-2011	1	04/20/2024 00:47	KMV	A
Alkalinity, Total	337	1	mg/L	5	SM2320B-2011	1	04/20/2024 00:47	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	04/26/2024 14:46	NML	C
Chemical Oxygen Demand (COD)	23		mg/L	15	EPA 410.4	1	04/19/2024 12:00	KMS	C
Chloride	327	2,3	mg/L	5.0	EPA 300.0	5	04/18/2024 18:48	J1W	A
Fluoride	ND	ND	mg/L	0.50	EPA 300.0	5	04/18/2024 18:48	J1W	A
Nitrate-N	18.5	4,5	mg/L	2.5	EPA 300.0	5	04/18/2024 18:48	J1W	A
pH	8.58	6	pH_Units		S4500HB-11	1	04/20/2024 00:47	KMV	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	04/29/2024 12:02	AKH	I
Specific Conductance	1770		umhos/cm	5	SM2510B-2011	1	04/25/2024 10:11	KMV	A
Sulfate	25.3	7,8	mg/L	5.0	EPA 300.0	5	04/18/2024 18:48	J1W	A
Total Dissolved Solids	962		mg/L	25	SM2540C-15	1	04/24/2024 16:00	RAG	A
Total Organic Carbon (TOC)	7.3		mg/L	0.50	SM5310B-14	1	04/23/2024 03:25	PAG	G
Turbidity	1.3		NTU	0.30	SM2130B-2011	1	04/18/2024 09:38	NPF	A

Results

Client Sample ID	CWMP017S	Collected	04/17/2024 12:06
Lab Sample ID	3355510002	Lab Receipt	04/17/2024 15:45

FIELD PARAMETERS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Dissolved Oxygen	10.64		mg/L	0.01	Field	1	04/17/2024 12:07	BGS	H
Oxidation-Reduction Potential	180		mV		Field	1	04/17/2024 12:07	BGS	H
pH, Field (SM4500B)	8.03		pH_Units		Field	1	04/17/2024 12:07	BGS	H
Specific Conductance, Field	3139		umhos/cm	1	Field	1	04/17/2024 12:07	BGS	H
Temperature	17.01		Deg. C		Field	1	04/17/2024 12:07	BGS	H
Turbidity, Field	ND	ND	NTU	1	Field	1	04/17/2024 12:07	BGS	H

LIBRARY SEARCH - VOLATILES

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
No TIC's Detected	.				Lib Search VOC	1	04/25/2024 01:06	TMP	L

METALS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Antimony, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:30	MO	F2
Arsenic, Dissolved	ND	ND	mg/L	0.0030	SW846 6020A	1	04/29/2024 11:26	MO	D1
Arsenic, Total	ND	ND	mg/L	0.0033	SW846 6020A	1	04/29/2024 11:30	MO	F2
Barium, Dissolved	0.035		mg/L	0.0056	SW846 6020A	1	04/29/2024 11:26	MO	D1
Barium, Total	0.034		mg/L	0.0056	SW846 6020A	1	04/29/2024 11:30	MO	F2
Beryllium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/29/2024 11:30	MO	F2
Cadmium, Dissolved	ND	ND	mg/L	0.0011	SW846 6020A	1	04/29/2024 11:26	MO	D1
Cadmium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/29/2024 11:30	MO	F2
Calcium, Dissolved	48.9		mg/L	0.11	SW846 6020A	1	04/29/2024 11:26	MO	D1
Calcium, Total	55.5		mg/L	0.11	SW846 6020A	1	04/29/2024 11:30	MO	F2
Chromium, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:26	MO	D1
Chromium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:30	MO	F2
Cobalt, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 11:30	MO	F2
Copper, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 11:26	MO	D1
Copper, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 11:30	MO	F2
Iron, Dissolved	ND	ND	mg/L	0.056	SW846 6020A	1	04/29/2024 11:26	MO	D1
Iron, Total	0.14		mg/L	0.056	SW846 6020A	1	04/29/2024 11:30	MO	F2
Lead, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:26	MO	D1
Lead, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:30	MO	F2
Magnesium, Dissolved	63.1		mg/L	0.11	SW846 6020A	1	04/29/2024 11:26	MO	D1
Magnesium, Total	77.7		mg/L	0.11	SW846 6020A	1	04/29/2024 11:30	MO	F2
Manganese, Dissolved	0.023		mg/L	0.0056	SW846 6020A	1	04/29/2024 11:26	MO	D1
Manganese, Total	0.024		mg/L	0.0056	SW846 6020A	1	04/29/2024 11:30	MO	F2
Mercury, Dissolved	ND	ND	mg/L	0.00050	SW846 7470A	1	04/29/2024 14:03	JSE	D
Mercury, Total	ND	ND	mg/L	0.00050	SW846 7470A	1	04/19/2024 16:28	JSE	F
Nickel, Total	0.0086		mg/L	0.0056	SW846 6020A	1	04/29/2024 11:30	MO	F2
Potassium, Dissolved	12.8		mg/L	0.11	SW846 6020A	1	04/29/2024 11:26	MO	D1
Potassium, Total	15.5		mg/L	0.11	SW846 6020A	1	04/29/2024 11:30	MO	F2
Selenium, Dissolved	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 11:26	MO	D1
Selenium, Total	ND	ND	mg/L	0.0056	SW846 6020A	1	04/29/2024 11:30	MO	F2
Silver, Dissolved	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:26	MO	D1

Results

Client Sample ID	CWMP017S	Collected	04/17/2024 12:06
Lab Sample ID	3355510002	Lab Receipt	04/17/2024 15:45

METALS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Silver, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:30	MO	F2
Sodium, Dissolved	191		mg/L	0.11	SW846 6020A	1	04/29/2024 11:26	MO	D1
Sodium, Total	229		mg/L	0.11	SW846 6020A	1	04/29/2024 11:30	MO	F2
Thallium, Total	ND	ND	mg/L	0.0011	SW846 6020A	1	04/29/2024 11:30	MO	F2
Vanadium, Total	ND	ND	mg/L	0.0022	SW846 6020A	1	04/29/2024 11:30	MO	F2
Zinc, Dissolved	0.018		mg/L	0.0056	SW846 6020A	1	04/29/2024 11:26	MO	D1
Zinc, Total	0.022		mg/L	0.0056	SW846 6020A	1	04/29/2024 11:30	MO	F2

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
1,1,1-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
1,1,2,2-Tetrachloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
1,1,2-Trichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
1,1-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
1,1-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
1,2,3-Trichloropropane	ND	ND	ug/L	2.0	SW846 8260B	1	04/25/2024 01:06	BST	L
1,2-Dibromo-3-chloropropane	ND	ND	ug/L	7.0	SW846 8260B	1	04/25/2024 01:06	BST	L
1,2-Dibromoethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
1,2-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
1,2-Dichloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
1,2-Dichloropropane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
1,3-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
1,4-Dichlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
2-Butanone	ND	ND	ug/L	10.0	SW846 8260B	1	04/25/2024 01:06	BST	L
2-Hexanone	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 01:06	BST	L
3-Chloro-1-propene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
4-Methyl-2-Pentanone(MIBK)	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Acetone	ND	ND	ug/L	10.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Acrylonitrile	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Benzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Bromochloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Bromodichloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Bromoform	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Bromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Carbon Disulfide	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Carbon Tetrachloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Chlorobenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Chlorodibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Chloroethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Chloroform	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Chloromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
cis-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
cis-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Dibromomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Dichlorodifluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L

Results

Client Sample ID	CWMP017S	Collected	04/17/2024 12:06
Lab Sample ID	3355510002	Lab Receipt	04/17/2024 15:45

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Ethylbenzene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Iodomethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Methylene Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Styrene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Tetrachloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Toluene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Total Xylenes	ND	ND	ug/L	3.0	SW846 8260B	1	04/25/2024 01:06	BST	L
trans-1,2-Dichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
trans-1,3-Dichloropropene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
trans-1,4-Dichloro-2-butene	ND	ND	ug/L	3.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Trichloroethene	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Trichlorofluoromethane	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Vinyl Acetate	ND	ND	ug/L	5.0	SW846 8260B	1	04/25/2024 01:06	BST	L
Vinyl Chloride	ND	ND	ug/L	1.0	SW846 8260B	1	04/25/2024 01:06	BST	L

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	114%	62 – 133	04/25/2024 01:06	
4-Bromofluorobenzene	460-00-4	94.8%	79 – 114	04/25/2024 01:06	
Dibromofluoromethane	1868-53-7	102%	78 – 116	04/25/2024 01:06	
Toluene-d8	2037-26-5	98.7%	76 – 127	04/25/2024 01:06	

WET CHEMISTRY

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Alkalinity, Bicarbonate	458		mg/L	50	SM2320B-2011	10	04/24/2024 16:56	KMV	A
Alkalinity, Total	458	1	mg/L	50	SM2320B-2011	10	04/24/2024 16:56	KMV	A
Ammonia-N, Low Level	ND	ND	mg/L	0.10	SM 4500-NH3G	1	04/24/2024 15:25	NML	C
Chemical Oxygen Demand (COD)	ND	ND	mg/L	15	EPA 410.4	1	04/19/2024 12:00	KMS	C
Chloride	397		mg/L	5.0	EPA 300.0	5	04/18/2024 19:40	J1W	A
Fluoride	ND	ND	mg/L	0.50	EPA 300.0	5	04/18/2024 19:40	J1W	A
Nitrate-N	21.3		mg/L	2.5	EPA 300.0	5	04/18/2024 19:40	J1W	A
pH	8.43	6	pH_Units		S4500HB-11	1	04/20/2024 01:02	KMV	A
Phenolics	ND	ND	mg/L	0.004	SW846 9066	1	04/29/2024 12:29	AKH	K
Specific Conductance	2120		umhos/cm	5	SM2510B-2011	1	04/25/2024 10:11	KMV	A
Sulfate	27.8		mg/L	5.0	EPA 300.0	5	04/18/2024 19:40	J1W	A
Total Dissolved Solids	1160		mg/L	25	SM2540C-15	1	04/24/2024 16:00	RAG	A
Total Organic Carbon (TOC)	4.0		mg/L	0.50	SM5310B-14	1	04/23/2024 03:25	PAG	I
Turbidity	1.5		NTU	0.30	SM2130B-2011	1	04/18/2024 09:38	NPF	A

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3355510001	CWMP018S	Field	N/A	
		SW846 6020A	SW846 3015A	
		SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		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 9066	SW846 9066	
3355510002	CWMP017S	Field	N/A	
		SW846 6020A	SW846 3015A	
		SW846 6020A	SW846 3015A	
		SW846 7470A	SW846 7470A	
		SW846 7470A	SW846 7470A	
		Lib Search VOC	N/A	
		SW846 8260B	N/A	
		EPA 300.0	N/A	
		EPA 410.4	N/A	
		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 9066	SW846 9066	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3355510001	CWMP018S	N/A	N/A	N/A		Field	1190854
		SW846 3015A	1187109	04/23/2024 02:18	ANN	SW846 6020A	1192235
		SW846 3015A	1183520	04/18/2024 11:50	MEM	SW846 6020A	1192230
		SW846 7470A	1184606	04/19/2024 10:00	JSE	SW846 7470A	1185016
		SW846 7470A	1192250	04/29/2024 11:00	JSE	SW846 7470A	1192313
		N/A	N/A	N/A		Lib Search VOC	1192709
		N/A	N/A	N/A		SW846 8260B	1188221
		N/A	N/A	N/A		EPA 300.0	1183411
		N/A	N/A	N/A		EPA 410.4	1184311
		N/A	N/A	N/A		S4500HB-11	1184736
		N/A	N/A	N/A		SM 4500-NH3G	1189708
		N/A	N/A	N/A		SM2130B-2011	1183417
		N/A	N/A	N/A		SM2320B-2011	1184736
		N/A	N/A	N/A		SM2510B-2011	1188629
		N/A	N/A	N/A		SM2540C-15	1187247
		N/A	N/A	N/A		SM5310B-14	1186617
		SW846 9066	1190839	04/26/2024 13:52	AKH	SW846 9066	1190847
3355510002	CWMP017S	N/A	N/A	N/A		Field	1190854
		SW846 3015A	1187109	04/23/2024 02:18	ANN	SW846 6020A	1192235
		SW846 3015A	1183520	04/18/2024 11:50	MEM	SW846 6020A	1192230
		SW846 7470A	1184606	04/19/2024 10:00	JSE	SW846 7470A	1185016
		SW846 7470A	1192250	04/29/2024 11:00	JSE	SW846 7470A	1192313
		N/A	N/A	N/A		Lib Search VOC	1192709
		N/A	N/A	N/A		SW846 8260B	1188221
		N/A	N/A	N/A		EPA 300.0	1183411
		N/A	N/A	N/A		EPA 410.4	1184311
		N/A	N/A	N/A		S4500HB-11	1184736
		N/A	N/A	N/A		SM 4500-NH3G	1187352
		N/A	N/A	N/A		SM2130B-2011	1183417
		N/A	N/A	N/A		SM2320B-2011	1186643
		N/A	N/A	N/A		SM2510B-2011	1188629
		N/A	N/A	N/A		SM2540C-15	1187247
		N/A	N/A	N/A		SM5310B-14	1186617
		SW846 9066	1190839	04/26/2024 13:52	AKH	SW846 9066	1190847

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

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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

3355510
Logged By: SLS
PM: SJB

3510 of

(Receiving Lab)

Client Name: Lancaster County Solid Waste MA

Address: 1299 Harrisburg Pike PO Box 4424
Lancaster PA 17604

Contact: Dan Brown
Phone#: 717-735-0193
Project Name/#: Creswell/GWMP Form 19A
Bill To: Lancaster County Solid Waste MA
Purchase Order #:

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

Date Required: **Approved?**
Email? [x] dbrown@lcswma.org

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

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

ANALYSIS / METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	TOC	O-OH	8260 VOCs - Form 19A+ Subtitle D+ TICs	pH, CL, SpC, F, SO4, NO3, Tb, TDS	Alkalinity, HCO3	FM	Sample Debth for AUX Data	NH3-N, COD	Diss Metals Form 19A (field filtered)	Total Metals Form 19A+Subtitle D
							Enter Number of Containers Per Sample or Field Results Below.									
1	CWMP018S	4/17/24	1145		G	GW	2	1	2	1	1	x	x	1	1	1
2	CWMP017S	4/17/24	1206				2	1	2	1	1			1	2	2
3																DPB 4/17/24
4																
5																
6																
7																
8																
9																
10																

Temp By: DPB | WO Temp (°C): 1° | Therm ID: 571

Receipt Info Completed By: DPB
Cooler Custody Seal Intact Y N NA
Sample Custody Seal Intact Y N NA
Received on Ice Y N NA
Cooler & Samples Intact Y N
Correct Containers Provided Y N
Sample Label/COC Agree Y N
Adequate Sample Volumes Y N
CR6 Samples Filtered Y N NA
OP Samples Filtered Y N NA
VOA 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

WO Temp (°C)
0-6°C Y N NA
Deviations? NO YES
If YES, list below:

Client contact:
Date/Tech:

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

PWS Contact:_____ PWS Phone #:_____

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

Sample/COC Remarks

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

Circle Sample Collector: ALS Tech / Client
Name: [illegible] ID:

Comments:

Date:	Time	Relinquished By / Company Name		Received By / Company Name	
4-17-24	1545	1 [illegible] ALS		2 [illegible]	
		3		4	
		5		6	
		7		8	
		9		10	

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

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

Sample Disposal: Lab [x] Special [ ]

EDDS: Format Type

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

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

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

Rev 07.06.2023