2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP015W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

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

Sampling Point — Latitude: 39 ° 57 ' 36.43 " — Longitude: 76 ° 27 ' 10.82 "

Depth to Water Level: 58.17 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 1.90 ft — Elevation of Water Level: 518.23 ft./MSL

Sampling Depth: 135 ft — Volume of Water Column: 133.25 gal

Total Well Depth: 148.9 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): 5/6/2024 — Sample Collection Time: 10:57

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358324001 — Final Lab Analysis CompletionDate: 5/15/2024

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

Comments:

I.D. No 101389
Monitoring Point No. FFMP015W
Sample Date 5/6/2024

# 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 | SM20-4500D |
| BICARBONATE ALKALINITY | 14 | SM20-2320B |
| CALCIUM, TOTAL | 8.6 | SW846 6010B |
| CALCIUM, DISSOLVED | 8.5 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 9.7 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 56 ND | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 56 ND | SW846 6010B |
| MAGNESIUM, TOTAL | 12.6 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 12.7 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 32 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 31 | SW846 6010B |
| NITRATE-NITROGEN | 8.9 | EPA 300 |
| pH-FIELD (SU) | 5.38 | FIELD |
| pH-LAB (SU) | 6.39 | SM20-4500B |
| POTASSIUM, TOTAL | 2.1 | SW846 6010B |
| POTASSIUM, DISSOLVED | 2.1 | SW846 6010B |
| SODIUM, TOTAL | 17.5 | SW846 6010B |
| SODIUM, DISSOLVED | 17.5 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 288 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 252 | EPA 120.1 |
| SULFATE | 53.6 | EPA 300 |
| ALKALINITY | 14 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 184 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.83 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 0.3 ND | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP015W |
| Sample Date | 5/6/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP015W |
| Sample Date | 5/6/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 45 | SW846 6010B |
| BARIUM, DISSOLVED | 43 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 2.2 ND | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 5.6 ND | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 22 | SW846 6010B |
| ZINC, DISSOLVED | 23 | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP015W |
| Sample Date | 5/6/2024 |

# 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 | 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 | 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 | 101389 |
| Monitoring Point No. | FFMP015W |
| Sample Date | 5/6/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 5.6 ND | SW846 6010B |
| NICKEL | 5.6 ND | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP015W |
| Sample Date | 5/6/2024 |

# 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 |
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| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP033W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: MANOR TOWNSHIP

Sampling Point — Latitude: 39 ° 57 ' 31.09 " — Longitude: 76 ° 27 ' 4.98 "

Depth to Water Level: 18.52 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 0.49 ft — Elevation of Water Level: 498.00 ft./MSL

Sampling Depth: 79 ft — Volume of Water Column: 113.79 gal

Total Well Depth: 96 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 2.2

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/6/2024 — Sample Collection Time: 12:14

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358324002 — Final Lab Analysis CompletionDate: 5/15/2024

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

Comments:

I.D. No 101389
Monitoring Point No. FFMP033W
Sample Date 5/6/2024

# 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 | SM20-4500D |
| BICARBONATE ALKALINITY | 27 | SM20-2320B |
| CALCIUM, TOTAL | 33.2 | SW846 6010B |
| CALCIUM, DISSOLVED | 33.1 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 83.3 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 1700 | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 1600 | SW846 6010B |
| MAGNESIUM, TOTAL | 12.8 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 12.6 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 190 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 180 | SW846 6010B |
| NITRATE-NITROGEN | 10.9 | EPA 300 |
| pH-FIELD (SU) | 5.44 | FIELD |
| pH-LAB (SU) | 6.56 | SM20-4500B |
| POTASSIUM, TOTAL | 1.8 | SW846 6010B |
| POTASSIUM, DISSOLVED | 1.8 | SW846 6010B |
| SODIUM, TOTAL | 19.2 | SW846 6010B |
| SODIUM, DISSOLVED | 19.1 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 600 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 435 | EPA 120.1 |
| SULFATE | 12.6 | EPA 300 |
| ALKALINITY | 27 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 358 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 4 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP033W |
| Sample Date | 5/6/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP033W |
| Sample Date | 5/6/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 68 | SW846 6010B |
| BARIUM, DISSOLVED | 67 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 2.2 ND | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 5.6 ND | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 5.6 ND | SW846 6010B |
| ZINC, DISSOLVED | 5.6 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP033W |
| Sample Date | 5/6/2024 |

# 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 | 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 | 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 | 101389 |
| Monitoring Point No. | FFMP033W |
| Sample Date | 5/6/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 5.6 ND | SW846 6010B |
| NICKEL | 5.6 ND | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP033W |
| Sample Date | 5/6/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP034W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: ___

Sampling Point — Latitude: ___ ° ___ ' ___ " — Longitude: ___ ° ___ ' ___ "

Depth to Water Level: 10.16 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: ___ ft — Elevation of Water Level: 462.72 ft./MSL

Sampling Depth: 25.85 ft — Volume of Water Column: ___ gal

Total Well Depth: 121 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): 5/6/2024 — Sample Collection Time: 13:08

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358324003 — Final Lab Analysis CompletionDate: 5/15/2024

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

Comments: ___

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP034W |
| Sample Date | 5/6/2024 |

# 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 | SM20-4500D |
| BICARBONATE ALKALINITY | 41 | SM20-2320B |
| CALCIUM, TOTAL | 54.6 | SW846 6010B |
| CALCIUM, DISSOLVED | 54 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 168 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 5500 | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 490 | SW846 6010B |
| MAGNESIUM, TOTAL | 21.6 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 21.2 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 130 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 130 | SW846 6010B |
| NITRATE-NITROGEN | 10.6 | EPA 300 |
| pH-FIELD (SU) | 5.79 | FIELD |
| pH-LAB (SU) | 7.02 | SM20-4500B |
| POTASSIUM, TOTAL | 3 | SW846 6010B |
| POTASSIUM, DISSOLVED | 2.9 | SW846 6010B |
| SODIUM, TOTAL | 43.5 | SW846 6010B |
| SODIUM, DISSOLVED | 43.1 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 843 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 748 | EPA 120.1 |
| SULFATE | 29.7 | EPA 300 |
| ALKALINITY | 41 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 512 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.85 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 130 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP034W |
| Sample Date | 5/6/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP034W |
| Sample Date | 5/6/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 55 | SW846 6010B |
| BARIUM, DISSOLVED | 53 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 2.2 ND | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 5.6 ND | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 21 | SW846 6010B |
| ZINC, DISSOLVED | 5.6 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

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|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP034W |
| Sample Date | 5/6/2024 |

# 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 | 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 | 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.

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|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP034W |
| Sample Date | 5/6/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 5.6 ND | SW846 6010B |
| NICKEL | 5.6 ND | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP034W |
| Sample Date | 5/6/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP029W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

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

Sampling Point — Latitude: 39 ° 57 ' 12.93 " — Longitude: 76 ° 27 ' 0.67 "

Depth to Water Level: 37.89 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.00 ft — Elevation of Water Level: 439.41 ft./MSL

Sampling Depth: 55 ft — Volume of Water Column: 30.27 gal

Total Well Depth: 58.5 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 1.7

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/6/2024 — Sample Collection Time: 13:24

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358324004 — Final Lab Analysis CompletionDate: 5/15/2024

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

Comments:

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP029W |
| Sample Date | 5/6/2024 |

# 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 | SM20-4500D |
| BICARBONATE ALKALINITY | 8 | SM20-2320B |
| CALCIUM, TOTAL | 8 | SW846 6010B |
| CALCIUM, DISSOLVED | 7.9 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 43.4 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 56 ND | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 56 ND | SW846 6010B |
| MAGNESIUM, TOTAL | 7.2 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 7.1 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 20 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 20 | SW846 6010B |
| NITRATE-NITROGEN | 3.6 | EPA 300 |
| pH-FIELD (SU) | 5.15 | FIELD |
| pH-LAB (SU) | 6.39 | SM20-4500B |
| POTASSIUM, TOTAL | 1.7 | SW846 6010B |
| POTASSIUM, DISSOLVED | 1.6 | SW846 6010B |
| SODIUM, TOTAL | 13.5 | SW846 6010B |
| SODIUM, DISSOLVED | 13.5 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 259 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 193 | EPA 120.1 |
| SULFATE | 2 ND | EPA 300 |
| ALKALINITY | 8 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 141 | 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 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP029W |
| Sample Date | 5/6/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP029W |
| Sample Date | 5/6/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 58 | SW846 6010B |
| BARIUM, DISSOLVED | 57 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 2.2 ND | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 5.6 ND | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 5.6 ND | SW846 6010B |
| ZINC, DISSOLVED | 5.6 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP029W |
| Sample Date | 5/6/2024 |

# 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 | 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 | 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 | 101389 |
| Monitoring Point No. | FFMP029W |
| Sample Date | 5/6/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 5.6 ND | SW846 6010B |
| NICKEL | 5.6 ND | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP029W |
| Sample Date | 5/6/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP04AW — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

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

Sampling Point — Latitude: 39 ° 57 ' 15.4 " — Longitude: 76 ° 27 ' 26.58 "

Depth to Water Level: 32.71 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.52 ft — Elevation of Water Level: 528.01 ft./MSL

Sampling Depth: 146 ft — Volume of Water Column: 394.79 gal

Total Well Depth: 301.52 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): 5/7/2024 — Sample Collection Time: 11:23

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358534001 — Final Lab Analysis CompletionDate: 5/15/2024

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

Comments:

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP04AW |
| Sample Date | 5/7/2024 |

# 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 | SM20-4500D |
| BICARBONATE ALKALINITY | 187 | SM20-2320B |
| CALCIUM, TOTAL | 141 | SW846 6010B |
| CALCIUM, DISSOLVED | 142 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 335 | EPA 300 |
| FLUORIDE | 0.5 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 56 ND | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 56 ND | SW846 6010B |
| MAGNESIUM, TOTAL | 26.8 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 26.3 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 500 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 510 | SW846 6010B |
| NITRATE-NITROGEN | 2.5 ND | EPA 300 |
| pH-FIELD (SU) | 6.96 | FIELD |
| pH-LAB (SU) | 7.85 | SM20-4500B |
| POTASSIUM, TOTAL | 2.7 | SW846 6010B |
| POTASSIUM, DISSOLVED | 2.7 | SW846 6010B |
| SODIUM, TOTAL | 88.2 | SW846 6010B |
| SODIUM, DISSOLVED | 89 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 2014 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 1470 | EPA 120.1 |
| SULFATE | 56.8 | EPA 300 |
| ALKALINITY | 187 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 1020 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.8 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 0.3 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP04AW |
| Sample Date | 5/7/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP04AW |
| Sample Date | 5/7/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 190 | SW846 6010B |
| BARIUM, DISSOLVED | 180 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 2.2 ND | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 5.6 ND | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 5.6 ND | SW846 6010B |
| ZINC, DISSOLVED | 5.6 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP04AW |
| Sample Date | 5/7/2024 |

# 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 | 1.5 | SW846 8260B |
| CARBON TETRACHLORIDE | 1 ND | SW846 8260B |
| CHLOROBENZENE | 1 ND | SW846 8260B |
| CHLOROETHANE | 1 ND | SW846 8260B |
| DIBROMOCHLOROMETHANE | 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 | 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 | 101389 |
| Monitoring Point No. | FFMP04AW |
| Sample Date | 5/7/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 5.6 ND | SW846 6010B |
| NICKEL | 14 | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP04AW |
| Sample Date | 5/7/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP03AW — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

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

Sampling Point — Latitude: 39 ° 57 ' 24.05 " — Longitude: 76 ° 27 ' 30.58 "

Depth to Water Level: 47.82 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 1.20 ft — Elevation of Water Level: 543.08 ft./MSL

Sampling Depth: 130 ft — Volume of Water Column: 145.95 gal

Total Well Depth: 147.2 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): 5/7/2024 — Sample Collection Time: 12:36

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358534002 — Final Lab Analysis CompletionDate: 5/17/2024

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

Comments:

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP03AW |
| Sample Date | 5/7/2024 |

# 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 | SM20-4500D |
| BICARBONATE ALKALINITY | 5 ND | SM20-2320B |
| CALCIUM, TOTAL | 19.6 | SW846 6010B |
| CALCIUM, DISSOLVED | 19.8 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 51.9 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 56 ND | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 56 ND | SW846 6010B |
| MAGNESIUM, TOTAL | 16.6 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 16.2 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 380 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 370 | SW846 6010B |
| NITRATE-NITROGEN | 20.7 E | EPA 300 |
| pH-FIELD (SU) | 5.16 | FIELD |
| pH-LAB (SU) | 6.08 | SM20-4500B |
| POTASSIUM, TOTAL | 1.5 | SW846 6010B |
| POTASSIUM, DISSOLVED | 1.5 | SW846 6010B |
| SODIUM, TOTAL | 15.6 | SW846 6010B |
| SODIUM, DISSOLVED | 16 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 510 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 365 | EPA 120.1 |
| SULFATE | 2.7 | EPA 300 |
| ALKALINITY | 12 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 204 | 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 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP03AW |
| Sample Date | 5/7/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP03AW |
| Sample Date | 5/7/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 58 | SW846 6010B |
| BARIUM, DISSOLVED | 59 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 2.2 ND | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 6.7 | SW846 6010B |
| COPPER, DISSOLVED | 6.3 | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 22 | SW846 6010B |
| ZINC, DISSOLVED | 22 | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP03AW |
| Sample Date | 5/7/2024 |

# 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 | 1.1 | SW846 8260B |
| CARBON TETRACHLORIDE | 1 ND | SW846 8260B |
| CHLOROBENZENE | 1 ND | SW846 8260B |
| CHLOROETHANE | 1 ND | SW846 8260B |
| DIBROMOCHLOROMETHANE | 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 | 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 | 101389 |
| Monitoring Point No. | FFMP03AW |
| Sample Date | 5/7/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 5.6 ND | SW846 6010B |
| NICKEL | 12 | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP03AW |
| Sample Date | 5/7/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP005W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

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

Sampling Point — Latitude: 39 ° 57 ' 10.67 " — Longitude: 76 ° 27 ' 21.3 "

Depth to Water Level: 61.16 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 1.70 ft — Elevation of Water Level: 476.24 ft./MSL

Sampling Depth: 135 ft — Volume of Water Column: 130.47 gal

Total Well Depth: 150 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): 5/7/2024 — Sample Collection Time: 13:14

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358534003 — Final Lab Analysis CompletionDate: 5/15/2024

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

Comments:

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP005W |
| Sample Date | 5/7/2024 |

# 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 | SM20-4500D |
| BICARBONATE ALKALINITY | 64 | SM20-2320B |
| CALCIUM, TOTAL | 66.4 | SW846 6010B |
| CALCIUM, DISSOLVED | 65.8 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 152 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 56 ND | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 56 ND | SW846 6010B |
| MAGNESIUM, TOTAL | 17.3 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 17.2 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 170 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 170 | SW846 6010B |
| NITRATE-NITROGEN | 1.2 | EPA 300 |
| pH-FIELD (SU) | 5.67 | FIELD |
| pH-LAB (SU) | 6.77 | SM20-4500B |
| POTASSIUM, TOTAL | 3.2 | SW846 6010B |
| POTASSIUM, DISSOLVED | 3.2 | SW846 6010B |
| SODIUM, TOTAL | 48.4 | SW846 6010B |
| SODIUM, DISSOLVED | 47.9 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 1077 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 774 | EPA 120.1 |
| SULFATE | 86 | EPA 300 |
| ALKALINITY | 64 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 506 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 1.7 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 0.3 ND | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP005W |
| Sample Date | 5/7/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP005W |
| Sample Date | 5/7/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 42 | SW846 6010B |
| BARIUM, DISSOLVED | 42 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 2.2 ND | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 5.6 ND | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 5.6 ND | SW846 6010B |
| ZINC, DISSOLVED | 5.6 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP005W |
| Sample Date | 5/7/2024 |

# 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 | 1.2 | SW846 8260B |
| CARBON TETRACHLORIDE | 1 ND | SW846 8260B |
| CHLOROBENZENE | 1 ND | SW846 8260B |
| CHLOROETHANE | 1 ND | SW846 8260B |
| DIBROMOCHLOROMETHANE | 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 | 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 | 101389 |
| Monitoring Point No. | FFMP005W |
| Sample Date | 5/7/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 5.6 ND | SW846 6010B |
| NICKEL | 5.6 ND | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP005W |
| Sample Date | 5/7/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP26RW — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

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

Sampling Point — Latitude: 39 ° 57 ' 11.03 " — Longitude: 76 ° 27 ' 20.3 "

Depth to Water Level: 70.98 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 3.30 ft — Elevation of Water Level: 476.42 ft./MSL

Sampling Depth: 105 ft — Volume of Water Column: 63.18 gal

Total Well Depth: 114 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 1.6

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/7/2024 — Sample Collection Time: 13:14

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358534004 — Final Lab Analysis CompletionDate: 5/15/2024

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

Comments:

I.D. No 101389
Monitoring Point No. FFMP26RW
Sample Date 5/7/2024

# 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 | SM20-4500D |
| BICARBONATE ALKALINITY | 67 | SM20-2320B |
| CALCIUM, TOTAL | 58.2 | SW846 6010B |
| CALCIUM, DISSOLVED | 57.4 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 121 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 66 | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 56 ND | SW846 6010B |
| MAGNESIUM, TOTAL | 14.9 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 14.9 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 710 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 710 | SW846 6010B |
| NITRATE-NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 5.67 | FIELD |
| pH-LAB (SU) | 6.78 | SM20-4500B |
| POTASSIUM, TOTAL | 7.4 | SW846 6010B |
| POTASSIUM, DISSOLVED | 7.5 | SW846 6010B |
| SODIUM, TOTAL | 47.6 | SW846 6010B |
| SODIUM, DISSOLVED | 47.3 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 974 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 704 | EPA 120.1 |
| SULFATE | 102 | EPA 300 |
| ALKALINITY | 67 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 392 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 2.2 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 0.95 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP26RW |
| Sample Date | 5/7/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP26RW |
| Sample Date | 5/7/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 65 | SW846 6010B |
| BARIUM, DISSOLVED | 65 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 2.2 ND | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 5.6 ND | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 6.7 | SW846 6010B |
| ZINC, DISSOLVED | 6.9 | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP26RW |
| Sample Date | 5/7/2024 |

# 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 | 1.4 | SW846 8260B |
| CARBON TETRACHLORIDE | 1 ND | SW846 8260B |
| CHLOROBENZENE | 1 ND | SW846 8260B |
| CHLOROETHANE | 1 ND | SW846 8260B |
| DIBROMOCHLOROMETHANE | 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 | 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 | 101389 |
| Monitoring Point No. | FFMP26RW |
| Sample Date | 5/7/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 17 | SW846 6010B |
| NICKEL | 5.6 ND | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP26RW |
| Sample Date | 5/7/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP30RW — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

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

Sampling Point — Latitude: 39 ° 57 ' 15.52 " — Longitude: 76 ° 27 ' 26.8 "

Depth to Water Level: 33.57 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.20 ft — Elevation of Water Level: 528.73 ft./MSL

Sampling Depth: 85 ft — Volume of Water Column: 82.88 gal

Total Well Depth: 90 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 2.0

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/7/2024 — Sample Collection Time: 15:34

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358534005 — Final Lab Analysis CompletionDate: 5/15/2024

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

Comments:

I.D. No 101389
Monitoring Point No. FFMP30RW
Sample Date 5/7/2024

# 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 | SM20-4500D |
| BICARBONATE ALKALINITY | 27 | SM20-2320B |
| CALCIUM, TOTAL | 27.3 | SW846 6010B |
| CALCIUM, DISSOLVED | 27.3 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 181 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 58 | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 56 ND | SW846 6010B |
| MAGNESIUM, TOTAL | 15.1 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 15.2 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 1500 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 1500 | SW846 6010B |
| NITRATE-NITROGEN | 6.4 | EPA 300 |
| pH-FIELD (SU) | 5.38 | FIELD |
| pH-LAB (SU) | 6.32 | SM20-4500B |
| POTASSIUM, TOTAL | 4.3 | SW846 6010B |
| POTASSIUM, DISSOLVED | 4.3 | SW846 6010B |
| SODIUM, TOTAL | 77.5 | SW846 6010B |
| SODIUM, DISSOLVED | 78 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 965 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 719 | EPA 120.1 |
| SULFATE | 21.9 | EPA 300 |
| ALKALINITY | 27 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 416 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.68 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 1.8 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP30RW |
| Sample Date | 5/7/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP30RW |
| Sample Date | 5/7/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 68 | SW846 6010B |
| BARIUM, DISSOLVED | 68 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 2.2 ND | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 5.6 ND | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.66 | SW846 7470A |
| MERCURY, DISSOLVED | 0.6 | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 12 | SW846 6010B |
| ZINC, DISSOLVED | 12 | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP30RW |
| Sample Date | 5/7/2024 |

# 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 | 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 | 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.

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|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP30RW |
| Sample Date | 5/7/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 14 | SW846 6010B |
| NICKEL | 18 | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP30RW |
| Sample Date | 5/7/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP035W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: MANOR TOWNSHIP

Sampling Point — Latitude: 39 ° 57 ' 15.95 " — Longitude: 76 ° 26 ' 57.26 "

Depth to Water Level: 41.97 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 1.45 ft — Elevation of Water Level: 435.59 ft./MSL

Sampling Depth: 65 ft — Volume of Water Column: 41.17 gal

Total Well Depth: 70 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): 5/8/2024 — Sample Collection Time: 10:24

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358730001 — Final Lab Analysis CompletionDate: 5/20/2024

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

Comments:

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP035W |
| Sample Date | 5/8/2024 |

# 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 | SM20-4500D |
| BICARBONATE ALKALINITY | 71 | SM20-2320B |
| CALCIUM, TOTAL | 64.7 | SW846 6010B |
| CALCIUM, DISSOLVED | 63.5 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 191 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 95 | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 56 ND | SW846 6010B |
| MAGNESIUM, TOTAL | 22.1 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 22.5 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 140 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 130 | SW846 6010B |
| NITRATE-NITROGEN | 10.7 | EPA 300 |
| pH-FIELD (SU) | 5.83 | FIELD |
| pH-LAB (SU) | 7.27 | SM20-4500B |
| POTASSIUM, TOTAL | 5.1 | SW846 6010B |
| POTASSIUM, DISSOLVED | 5.2 | SW846 6010B |
| SODIUM, TOTAL | 66.8 | SW846 6010B |
| SODIUM, DISSOLVED | 68.7 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 1305 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 911 | EPA 120.1 |
| SULFATE | 50.4 | EPA 300 |
| ALKALINITY | 71 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 586 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 1.4 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 0.45 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP035W |
| Sample Date | 5/8/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP035W |
| Sample Date | 5/8/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 120 | SW846 6010B |
| BARIUM, DISSOLVED | 120 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 13 | SW846 6010B |
| CHROMIUM, DISSOLVED | 3.2 | SW846 6010B |
| COPPER, TOTAL | 6.3 | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 17 | SW846 6010B |
| ZINC, DISSOLVED | 17 | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP035W |
| Sample Date | 5/8/2024 |

# 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 | 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 | 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 | 101389 |
| Monitoring Point No. | FFMP035W |
| Sample Date | 5/8/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 5.6 ND | SW846 6010B |
| NICKEL | 47 | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP035W |
| Sample Date | 5/8/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP036W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: MANOR TOWNSHIP

Sampling Point — Latitude: 39 o 57 ' 16.03 " — Longitude: 76 o 26 ' 57.28 "

Depth to Water Level: 46.79 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 1.91 ft — Elevation of Water Level: 431.44 ft./MSL

Sampling Depth: 135 ft — Volume of Water Column: 136.89 gal

Total Well Depth: 140 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): 5/8/2024 — Sample Collection Time: 10:14

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358730002 — Final Lab Analysis CompletionDate: 5/20/2024

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

Comments:

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP036W |
| Sample Date | 5/8/2024 |

# 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 | SM20-4500D |
| BICARBONATE ALKALINITY | 92 | SM20-2320B |
| CALCIUM, TOTAL | 40.9 | SW846 6010B |
| CALCIUM, DISSOLVED | 37 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 34.4 | EPA 300 |
| FLUORIDE | 0.22 | EPA 300 |
| IRON, TOTAL (ug/l) | 1900 | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 1300 | SW846 6010B |
| MAGNESIUM, TOTAL | 4.4 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 4.4 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 130 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 120 | SW846 6010B |
| NITRATE-NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 7.98 | FIELD |
| pH-LAB (SU) | 8.25 | SM20-4500B |
| POTASSIUM, TOTAL | 0.92 | SW846 6010B |
| POTASSIUM, DISSOLVED | 0.95 | SW846 6010B |
| SODIUM, TOTAL | 15.8 | SW846 6010B |
| SODIUM, DISSOLVED | 16 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 464 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 330 | EPA 120.1 |
| SULFATE | 26.8 | EPA 300 |
| ALKALINITY | 92 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 184 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.53 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 16 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP036W |
| Sample Date | 5/8/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP036W |
| Sample Date | 5/8/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 120 | SW846 6010B |
| BARIUM, DISSOLVED | 110 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 2.2 ND | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 5.6 ND | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 5.6 ND | SW846 6010B |
| ZINC, DISSOLVED | 5.6 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP036W |
| Sample Date | 5/8/2024 |

# 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 | 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 | 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.

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|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP036W |
| Sample Date | 5/8/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 5.6 ND | SW846 6010B |
| NICKEL | 5.6 ND | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

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|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP036W |
| Sample Date | 5/8/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP038W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: MANOR TOWNSHIP

Sampling Point — Latitude: 39 ° 57 ' 10.18 " — Longitude: 76 ° 27 ' 2.2 "

Depth to Water Level: 19.05 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.15 ft — Elevation of Water Level: 434.99 ft./MSL

Sampling Depth: 46 ft — Volume of Water Column: 45.45 gal

Total Well Depth: 50 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): 5/8/2024 — Sample Collection Time: 12:24

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358730003 — Final Lab Analysis CompletionDate: 5/20/2024

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

Comments:

I.D. No 101389
Monitoring Point No. FFMP038W
Sample Date 5/8/2024

# 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 | 0.5 ND | SM20-4500D |
| BICARBONATE ALKALINITY | 64 | SM20-2320B |
| CALCIUM, TOTAL | 56.6 | SW846 6010B |
| CALCIUM, DISSOLVED | 51.2 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 98.1 | EPA 300 |
| FLUORIDE | 0.23 | EPA 300 |
| IRON, TOTAL (ug/l) | 2900 | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 3300 | SW846 6010B |
| MAGNESIUM, TOTAL | 5.9 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 5.9 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 96 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 94 | SW846 6010B |
| NITRATE-NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 7.8 | FIELD |
| pH-LAB (SU) | 8.02 | SM20-4500B |
| POTASSIUM, TOTAL | 1 | SW846 6010B |
| POTASSIUM, DISSOLVED | 1 | SW846 6010B |
| SODIUM, TOTAL | 14.7 | SW846 6010B |
| SODIUM, DISSOLVED | 13.9 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 649 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 455 | EPA 120.1 |
| SULFATE | 12.3 | EPA 300 |
| ALKALINITY | 64 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 338 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.52 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 45 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP038W |
| Sample Date | 5/8/2024 |

# 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 | 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 | 11.7 | 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 | 101389 |
| Monitoring Point No. | FFMP038W |
| Sample Date | 5/8/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 81 | SW846 6010B |
| BARIUM, DISSOLVED | 74 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 2.2 ND | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 5.6 ND | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 5.6 ND | SW846 6010B |
| ZINC, DISSOLVED | 5.6 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP038W |
| Sample Date | 5/8/2024 |

# 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 | 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 | 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 | 101389 |
| Monitoring Point No. | FFMP038W |
| Sample Date | 5/8/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 5.6 ND | SW846 6010B |
| NICKEL | 5.6 ND | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP038W |
| Sample Date | 5/8/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP039W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: MANOR TOWNSHIP

Sampling Point — Latitude: 39 o 57 ' 10.38 " — Longitude: 76 o 27 ' 2.83 "

Depth to Water Level: 12.92 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.04 ft — Elevation of Water Level: 442.54 ft./MSL

Sampling Depth: 118 ft — Volume of Water Column: 171.95 gal

Total Well Depth: 130 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 1.3

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/8/2024 — Sample Collection Time: 12:47

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358730004 — Final Lab Analysis CompletionDate: 5/20/2024

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

Comments:

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP039W |
| Sample Date | 5/8/2024 |

# 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 | 0.5 ND | SM20-4500D |
| BICARBONATE ALKALINITY | 45 | SM20-2320B |
| CALCIUM, TOTAL | 63.5 | SW846 6010B |
| CALCIUM, DISSOLVED | 61.1 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 243 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 730 | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 150 | SW846 6010B |
| MAGNESIUM, TOTAL | 24 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 24.4 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 770 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 710 | SW846 6010B |
| NITRATE-NITROGEN | 3.4 | EPA 300 |
| pH-FIELD (SU) | 5.72 | FIELD |
| pH-LAB (SU) | 7.15 | SM20-4500B |
| POTASSIUM, TOTAL | 6.4 | SW846 6010B |
| POTASSIUM, DISSOLVED | 6.5 | SW846 6010B |
| SODIUM, TOTAL | 69.5 | SW846 6010B |
| SODIUM, DISSOLVED | 71.7 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 1378 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 976 | EPA 120.1 |
| SULFATE | 48.1 | EPA 300 |
| ALKALINITY | 45 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 650 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 1.3 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 5.8 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP039W |
| Sample Date | 5/8/2024 |

# 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 | 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.

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|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP039W |
| Sample Date | 5/8/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 82 | SW846 6010B |
| BARIUM, DISSOLVED | 84 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 2.2 ND | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 5.6 ND | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 5.6 ND | SW846 6010B |
| ZINC, DISSOLVED | 6.4 | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

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|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP039W |
| Sample Date | 5/8/2024 |

# 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 | 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 | 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.

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|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP039W |
| Sample Date | 5/8/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 5.6 ND | SW846 6010B |
| NICKEL | 7.3 | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

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|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP039W |
| Sample Date | 5/8/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP002W — X Well ___ Spring ___ Stream ___ Other

X Upgradient/Upstream ___ Downgradient/Downstream

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

Sampling Point — Latitude: 39 ° 57 ' 32.25 " — Longitude: 76 ° 27 ' 24.03 "

Depth to Water Level: 53.67 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 1.60 ft — Elevation of Water Level: 559.53 ft./MSL

Sampling Depth: 85 ft — Volume of Water Column: 170.26 gal

Total Well Depth: 169.6 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): 5/8/2024 — Sample Collection Time: 14:29

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358730005 — Final Lab Analysis CompletionDate: 5/20/2024

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

Comments:

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP002W |
| Sample Date | 5/8/2024 |

# 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 | SM20-4500D |
| BICARBONATE ALKALINITY | 5 ND | SM20-2320B |
| CALCIUM, TOTAL | 15.2 | SW846 6010B |
| CALCIUM, DISSOLVED | 15 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 17.3 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 210 | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 56 ND | SW846 6010B |
| MAGNESIUM, TOTAL | 6.8 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 7 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 200 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 200 | SW846 6010B |
| NITRATE-NITROGEN | 18 | EPA 300 |
| pH-FIELD (SU) | 4.47 | FIELD |
| pH-LAB (SU) | 5.76 | SM20-4500B |
| POTASSIUM, TOTAL | 1.1 | SW846 6010B |
| POTASSIUM, DISSOLVED | 1.2 | SW846 6010B |
| SODIUM, TOTAL | 13.6 | SW846 6010B |
| SODIUM, DISSOLVED | 14.5 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 337 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 242 | EPA 120.1 |
| SULFATE | 11.9 | EPA 300 |
| ALKALINITY | 5 ND | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 186 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.61 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 1.7 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP002W |
| Sample Date | 5/8/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP002W |
| Sample Date | 5/8/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 53 | SW846 6010B |
| BARIUM, DISSOLVED | 52 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 2.9 | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 24 | SW846 6010B |
| COPPER, DISSOLVED | 20 | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 5.8 | SW846 6010B |
| LEAD, DISSOLVED | 4.2 | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 31 | SW846 6010B |
| ZINC, DISSOLVED | 31 | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP002W |
| Sample Date | 5/8/2024 |

# 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 | 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 | 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 | 101389 |
| Monitoring Point No. | FFMP002W |
| Sample Date | 5/8/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 18 | SW846 6010B |
| NICKEL | 31 | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP002W |
| Sample Date | 5/8/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP031W — X Well ___ Spring ___ Stream ___ Other

X Upgradient/Upstream ___ Downgradient/Downstream

Location (County): Lancaster County — Municipality: MANOR TOWNSHIP

Sampling Point — Latitude: 39 ° 57 ' 31.2 " — Longitude: 76 ° 27 ' 23.53 "

Depth to Water Level: 59.04 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.38 ft — Elevation of Water Level: 553.62 ft./MSL

Sampling Depth: 130 ft — Volume of Water Column: 118.90 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): 5/8/2024 — Sample Collection Time: 14:56

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358730006 — Final Lab Analysis CompletionDate: 5/20/2024

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

Comments:

I.D. No 101389
Monitoring Point No. FFMP031W
Sample Date 5/8/2024

# 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 | 0.14 | SM20-4500D |
| BICARBONATE ALKALINITY | 87 | SM20-2320B |
| CALCIUM, TOTAL | 47.4 | SW846 6010B |
| CALCIUM, DISSOLVED | 44.1 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 22.3 | EPA 300 |
| FLUORIDE | 0.21 | EPA 300 |
| IRON, TOTAL (ug/l) | 4100 | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 4100 | SW846 6010B |
| MAGNESIUM, TOTAL | 4.5 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 4.6 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 400 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 390 | SW846 6010B |
| NITRATE-NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 8.17 | FIELD |
| pH-LAB (SU) | 8.11 | SM20-4500B |
| POTASSIUM, TOTAL | 1.4 | SW846 6010B |
| POTASSIUM, DISSOLVED | 1.5 | SW846 6010B |
| SODIUM, TOTAL | 9.6 | SW846 6010B |
| SODIUM, DISSOLVED | 10.1 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 482 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 333 | EPA 120.1 |
| SULFATE | 50.5 | EPA 300 |
| ALKALINITY | 87 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 194 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.5 ND | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 27 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP031W |
| Sample Date | 5/8/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP031W |
| Sample Date | 5/8/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 51 | SW846 6010B |
| BARIUM, DISSOLVED | 52 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 2.2 ND | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 5.6 ND | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 5.6 ND | SW846 6010B |
| ZINC, DISSOLVED | 5.6 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP031W |
| Sample Date | 5/8/2024 |

# 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 | 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 | 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.

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|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP031W |
| Sample Date | 5/8/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 5.6 ND | SW846 6010B |
| NICKEL | 5.6 ND | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

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|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP031W |
| Sample Date | 5/8/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP02SW — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: MANOR TOWNSHIP

Sampling Point — Latitude: 39 ° 57 ' 27.9 " — Longitude: 76 ° 27 ' 1.58 "

Depth to Water Level: 14.69 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: ___ ft — Elevation of Water Level: 495.21 ft./MSL

Sampling Depth: 18 ft — Volume of Water Column: ___ gal

Total Well Depth: 25 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 3.5

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/9/2024 — Sample Collection Time: 10:08

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358998001 — Final Lab Analysis CompletionDate: 5/17/2024

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

Comments:

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP02SW |
| Sample Date | 5/9/2024 |

# 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 | 0.5 ND | SM20-4500D |
| BICARBONATE ALKALINITY | 27 | SM20-2320B |
| CALCIUM, TOTAL | 25.8 | SW846 6010B |
| CALCIUM, DISSOLVED | 23.3 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 119 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 390 | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 56 ND | SW846 6010B |
| MAGNESIUM, TOTAL | 8.9 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 8.6 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 29 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 18 | SW846 6010B |
| NITRATE-NITROGEN | 9.9 | EPA 300 |
| pH-FIELD (SU) | 6.68 | FIELD |
| pH-LAB (SU) | 7.06 | SM20-4500B |
| POTASSIUM, TOTAL | 4.4 | SW846 6010B |
| POTASSIUM, DISSOLVED | 4.6 | SW846 6010B |
| SODIUM, TOTAL | 67.1 | SW846 6010B |
| SODIUM, DISSOLVED | 58.7 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 789 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 607 | EPA 120.1 |
| SULFATE | 46.8 | EPA 300 |
| ALKALINITY | 27 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 344 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 1.9 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 21 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP02SW |
| Sample Date | 5/9/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP02SW |
| Sample Date | 5/9/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 96 | SW846 6010B |
| BARIUM, DISSOLVED | 85 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 9.4 | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 5.6 ND | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 13 | SW846 6010B |
| ZINC, DISSOLVED | 9.5 | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP02SW |
| Sample Date | 5/9/2024 |

# 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 | 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 | 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 | 101389 |
| Monitoring Point No. | FFMP02SW |
| Sample Date | 5/9/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 5.6 ND | SW846 6010B |
| NICKEL | 6.9 | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP02SW |
| Sample Date | 5/9/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP02DW — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

Location (County): Lancaster County — Municipality: MANOR TOWNSHIP

Sampling Point — Latitude: 39 o 57 ' 27.74 " — Longitude: 76 o 27 ' 1.49 "

Depth to Water Level: 26.18 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: ___ ft — Elevation of Water Level: 483.42 ft./MSL

Sampling Depth: 120 ft — Volume of Water Column: ___ gal

Total Well Depth: 152 ft — Sampling Method: X Pumped ___ Bailed ___ Grab

Well Purged: X Yes ___ No — Well Volumes Purged: 1.4

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/9/2024 — Sample Collection Time: 12:36

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358998002 — Final Lab Analysis CompletionDate: 5/17/2024

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

Comments:

I.D. No 101389
Monitoring Point No. FFMP02DW
Sample Date 5/9/2024

# 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 | SM20-4500D |
| BICARBONATE ALKALINITY | 126 | SM20-2320B |
| CALCIUM, TOTAL | 118 | SW846 6010B |
| CALCIUM, DISSOLVED | 119 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 402 | EPA 300 |
| FLUORIDE | 0.5 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 1200 | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 160 | SW846 6010B |
| MAGNESIUM, TOTAL | 20.5 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 20.8 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 380 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 400 | SW846 6010B |
| NITRATE-NITROGEN | 7.6 | EPA 300 |
| pH-FIELD (SU) | 7.14 | FIELD |
| pH-LAB (SU) | 8.09 | SM20-4500B |
| POTASSIUM, TOTAL | 1.7 | SW846 6010B |
| POTASSIUM, DISSOLVED | 1.7 | SW846 6010B |
| SODIUM, TOTAL | 142 | SW846 6010B |
| SODIUM, DISSOLVED | 143 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 2212 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 1620 | EPA 120.1 |
| SULFATE | 45.3 | EPA 300 |
| ALKALINITY | 126 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 1020 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.93 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 14 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP02DW |
| Sample Date | 5/9/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP02DW |
| Sample Date | 5/9/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 190 | SW846 6010B |
| BARIUM, DISSOLVED | 180 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 2.2 ND | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 5.6 ND | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 5.6 ND | SW846 6010B |
| ZINC, DISSOLVED | 5.6 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP02DW |
| Sample Date | 5/9/2024 |

# 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 | 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 | 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 | 101389 |
| Monitoring Point No. | FFMP02DW |
| Sample Date | 5/9/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 5.6 ND | SW846 6010B |
| NICKEL | 7.1 | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP02DW |
| Sample Date | 5/9/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP017W — X Well ___ Spring ___ Stream ___ Other

___ Upgradient/Upstream X Downgradient/Downstream

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

Sampling Point — Latitude: 39 o 57 ' 8.5 " — Longitude: 76 o 27 ' 6.17 "

Depth to Water Level: 39.59 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.00 ft — Elevation of Water Level: 441.11 ft./MSL

Sampling Depth: 135 ft — Volume of Water Column: 162.89 gal

Total Well Depth: 150.5 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): 5/9/2024 — Sample Collection Time: 11:52

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358998003 — Final Lab Analysis CompletionDate: 5/17/2024

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

Comments:

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP017W |
| Sample Date | 5/9/2024 |

# 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 | 0.11 | SM20-4500D |
| BICARBONATE ALKALINITY | 95 | SM20-2320B |
| CALCIUM, TOTAL | 126 | SW846 6010B |
| CALCIUM, DISSOLVED | 126 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 | EPA 410.4 |
| CHLORIDE | 499 | EPA 300 |
| FLUORIDE | 0.5 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 91 | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 56 ND | SW846 6010B |
| MAGNESIUM, TOTAL | 47.5 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 48.8 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 1500 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 1500 | SW846 6010B |
| NITRATE-NITROGEN | 4.6 | EPA 300 |
| pH-FIELD (SU) | 6.19 | FIELD |
| pH-LAB (SU) | 7.55 | SM20-4500B |
| POTASSIUM, TOTAL | 14.4 | SW846 6010B |
| POTASSIUM, DISSOLVED | 14.2 | SW846 6010B |
| SODIUM, TOTAL | 150 | SW846 6010B |
| SODIUM, DISSOLVED | 149 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 2737 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 1990 | EPA 120.1 |
| SULFATE | 124 | EPA 300 |
| ALKALINITY | 95 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 1280 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 4.1 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 2.6 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP017W |
| Sample Date | 5/9/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP017W |
| Sample Date | 5/9/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 160 | SW846 6010B |
| BARIUM, DISSOLVED | 160 | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 4.4 | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 5.6 ND | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 10 | SW846 6010B |
| ZINC, DISSOLVED | 12 | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP017W |
| Sample Date | 5/9/2024 |

# 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 | 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 | 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 | 101389 |
| Monitoring Point No. | FFMP017W |
| Sample Date | 5/9/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 14 | SW846 6010B |
| NICKEL | 7 | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP017W |
| Sample Date | 5/9/2024 |

# 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 |
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2540-FM-BWM0041 Rev. 6/2005

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**BUREAU OF WASTE MANAGEMENT**

| Date Prepared/Revised |
|---|
| 07/01/2024 |
| 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: Frey Farm Landfill

Facitlity ID (as issued by DEP): 101389

### 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: FFMP032W — X Well ___ Spring ___ Stream ___ Other

X Upgradient/Upstream ___ Downgradient/Downstream

Location (County): Lancaster County — Municipality: MANOR TOWNSHIP

Sampling Point — Latitude: 39 o 57 ' 33.45 " — Longitude: 76 o 27 ' 17.71 "

Depth to Water Level: 46.55 ft — Measured from: ___ Land Surface X TOC

Casing Stickup: 2.06 ft — Elevation of Water Level: 547.54 ft./MSL

Sampling Depth: 62 ft — Volume of Water Column: 41.78 gal

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

Well Purged: X Yes ___ No — Well Volumes Purged: 0.9

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

Spring Flow Rate: ___ gpm

Sample Date (mm/dd/yy): 5/9/2024 — Sample Collection Time: 14:43

Sample Collector's Name: Mr. Brian G Shade

Sample Collector's Affiliation: ALS

Laboratory(ies) Performing Analysis: ALS Environmental

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

Lab Accreditation Number(s): 22-293

Lab Sample Number(s): 3358998004 — Final Lab Analysis CompletionDate: 5/17/2024

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

Comments:

I.D. No 101389
Monitoring Point No. FFMP032W
Sample Date 5/9/2024

# 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 | 0.81 | SM20-4500D |
| BICARBONATE ALKALINITY | 72 | SM20-2320B |
| CALCIUM, TOTAL | 16.6 | SW846 6010B |
| CALCIUM, DISSOLVED | 16.5 | SW846 6010B |
| COD (CHEMICAL OXYGEN DEMAND) | 15 ND | EPA 410.4 |
| CHLORIDE | 27.3 | EPA 300 |
| FLUORIDE | 0.2 ND | EPA 300 |
| IRON, TOTAL (ug/l) | 12200 | SW846 6010B |
| IRON, DISSOLVED (ug/l) | 3500 | SW846 6010B |
| MAGNESIUM, TOTAL | 6.4 | SW846 6010B |
| MAGNESIUM, DISSOLVED | 6.3 | SW846 6010B |
| MANGANESE, TOTAL (ug/l) | 600 | SW846 6010B |
| MANGANESE, DISSOLVED (ug/l) | 530 | SW846 6010B |
| NITRATE-NITROGEN | 1 ND | EPA 300 |
| pH-FIELD (SU) | 6.93 | FIELD |
| pH-LAB (SU) | 8.06 | SM20-4500B |
| POTASSIUM, TOTAL | 1.6 | SW846 6010B |
| POTASSIUM, DISSOLVED | 1.6 | SW846 6010B |
| SODIUM, TOTAL | 13.6 | SW846 6010B |
| SODIUM, DISSOLVED | 13.3 | SW846 6010B |
| SPEC. COND., FIELD (umhos/cm) | 322 | FIELD |
| SPEC. COND., LAB (umhos/cm) | 221 | EPA 120.1 |
| SULFATE | 2 ND | EPA 300 |
| ALKALINITY | 72 | SM20-2320B |
| TDS (TOT. DISSOLVED SOLIDS) | 118 | SM20-2540C |
| TOC (TOTAL ORGANIC CARBON) | 0.7 | SM20-5310B |
| TOTAL PHENOLICS (ug/l) | 4 ND | SW846 9066 |
| TURBIDITY (N.T.U.) | 70 | SM20- 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 | 101389 |
| Monitoring Point No. | FFMP032W |
| Sample Date | 5/9/2024 |

# 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 | 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 | 101389 |
| Monitoring Point No. | FFMP032W |
| Sample Date | 5/9/2024 |

# 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 6010B |
| ARSENIC, DISSOLVED | 3 ND | SW846 6010B |
| BARIUM, TOTAL | 5.6 ND | SW846 6010B |
| BARIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| CADMIUM, TOTAL | 1.1 ND | SW846 6010B |
| CADMIUM, DISSOLVED | 1.1 ND | SW846 6010B |
| CHROMIUM, TOTAL | 4 | SW846 6010B |
| CHROMIUM, DISSOLVED | 2.2 ND | SW846 6010B |
| COPPER, TOTAL | 11 | SW846 6010B |
| COPPER, DISSOLVED | 5.6 ND | SW846 6010B |
| LEAD-FLAMELESS, TOTAL | 2.2 ND | SW846 6010B |
| LEAD, DISSOLVED | 2.2 ND | SW846 6010B |
| MERCURY, TOTAL | 0.5 ND | SW846 7470A |
| MERCURY, DISSOLVED | 0.5 ND | SW846 7470A |
| SELENIUM, TOTAL | 5.6 ND | SW846 6010B |
| SELENIUM, DISSOLVED | 5.6 ND | SW846 6010B |
| SILVER, TOTAL | 2.2 ND | SW846 6010B |
| SILVER, DISSOLVED | 2.2 ND | SW846 6010B |
| ZINC, TOTAL | 5.6 ND | SW846 6010B |
| ZINC, DISSOLVED | 5.6 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP032W |
| Sample Date | 5/9/2024 |

# 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 | 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 | 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 | 101389 |
| Monitoring Point No. | FFMP032W |
| Sample Date | 5/9/2024 |

# 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 | 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 | SW846 6010B |
| BERYLLIUM | 1.1 ND | SW846 6010B |
| COBALT | 5.6 ND | SW846 6010B |
| NICKEL | 5.6 ND | SW846 6010B |
| THALLIUM | 1.1 ND | SW846 6010B |
| VANADIUM | 2.2 ND | SW846 6010B |

T Please indicate detection limit if analyte is not detected.

| | |
|---|---|
| I.D. No | 101389 |
| Monitoring Point No. | FFMP032W |
| Sample Date | 5/9/2024 |

# 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 |
|---|---|
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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 FFMP-FORM 19A
Workorder 3358730
Report ID 323633 on 5/21/2024

## Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 08, 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 |
|---|---|---|---|---|---|---|
| 3358730001 | FFMP035W | Ground Water | 05/08/2024 10:24 | 05/08/2024 16:25 | BGS | Analytical Laboratory Service |
| 3358730002 | FFMP036W | Ground Water | 05/08/2024 10:14 | 05/08/2024 16:25 | BGS | Analytical Laboratory Service |
| 3358730003 | FFMP038W | Ground Water | 05/08/2024 12:24 | 05/08/2024 16:25 | BGS | Analytical Laboratory Service |
| 3358730004 | FFMP039W | Ground Water | 05/08/2024 12:47 | 05/08/2024 16:25 | BGS | Analytical Laboratory Service |
| 3358730005 | FFMP002W | Ground Water | 05/08/2024 14:29 | 05/08/2024 16:25 | BGS | Analytical Laboratory Service |
| 3358730006 | FFMP031W | Ground Water | 05/08/2024 14:56 | 05/08/2024 16:25 | BGS | Analytical Laboratory Service |

# Reference

## Notes

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

## Standard Acronyms/Flags

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

## Project Notations

## Sample Notations

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

## Result Notations

| Notation Ref. | |
|---|---|
| 1 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 2 | The pH analysis is an "analyze immediately" analysis. Parameters identified as "analyze immediately" require analysis within 15 minutes of collection, and are therefore analyzed outside of the method holding time when analyzed in the laboratory. |
| 3 | The concentration of this analyte was greater than 4 times the concentration of the spike added to the matrix spike. According to protocol, the calculation for percent recovery of the matrix spike is not valid. |
| 4 | The QC type LLCCV for method SW846 6020A was outside the control limits for the analyte Se. The % RSD was reported as 20.7 and the control limits were 0 to 20. |
| 5 | The QC type LLCCV for method SW846 6020A was outside the control limits for the analyte Na. The % recovery was reported as 56.6 and the control limits were 70 to 130. The sample concentration was above the concentration of the CCV. |
| 6 | The QC type LLCCV for method SW846 6020A was outside the control limits for the analyte V. The % RSD was reported as 22.0 and the control limits were 0 to 20. |

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP035W | Collected | 05/08/2024 10:24 |
| Lab Sample ID | 3358730001 | Lab Receipt | 05/08/2024 16:25 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 41.97 | Feet | | Field | # |
| Dissolved Oxygen | 4.98 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 477.56 | Feet | | Field | # |
| Flow Rate | 0.47 | gal/min | | Field | # |
| Ground Water Elevation | 435.59 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | 242 | mV | | Field | # |
| pH, Field (SM4500B) | 5.83 | pH_Units | | Field | # |
| Sample Depth | 65.00 | Feet | | Field | # |
| Specific Conductance, Field | 1305 | umhos/cm | 1 | Field | # |
| Temperature | 21.83 | Deg. C | | Field | # |
| Total Well Depth | 71.80 | Feet | | Field | # |
| Volume in Water Column | 43.85 | Gallons | | Field | # |
| Water Level After Purge | 44.90 | Feet | | Field | # |
| Well Volumes Purged | 1.07 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.12 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.12 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 63.5 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 64.7 | mg/L | 0.11 | SW846 6020A | # |
| Chromium, Dissolved | 0.0032 | mg/L | 0.0022 | SW846 6020A | # |
| Chromium, Total | 0.013 | mg/L | 0.0022 | SW846 6020A | # |
| Copper, Total | 0.0063 | mg/L | 0.0056 | SW846 6020A | # |
| Iron, Total | 0.095 | mg/L | 0.056 | SW846 6020A | # |
| Magnesium, Dissolved | 22.5 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 22.1 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.13 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.14 | mg/L | 0.0056 | SW846 6020A | # |
| Nickel, Total | 0.047 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 5.2 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 5.1 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 68.7 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 66.8 | mg/L | 0.11 | SW846 6020A | # |
| Zinc, Dissolved | 0.017 | mg/L | 0.0056 | SW846 6020A | # |
| Zinc, Total | 0.017 | mg/L | 0.0056 | SW846 6020A | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 71 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 71 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 191 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 10.7 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 7.27 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 911 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 50.4 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 586 | mg/L | 25 | SM2540C-15 | # |

## Detected Results Summary

Sample - FFMP035W (cont.)

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **WET CHEMISTRY (cont.)** | | | | | |
| Total Organic Carbon (TOC) | 1.4 | mg/L | 0.50 | SM5310B-14 | # |
| Turbidity | 0.45 | NTU | 0.30 | SM2130B-2011 | # |

# Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP036W | Collected | 05/08/2024 10:14 |
| Lab Sample ID | 3358730002 | Lab Receipt | 05/08/2024 16:25 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 46.79 | Feet | | Field | # |
| Dissolved Oxygen | 0.01 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 478.23 | Feet | | Field | # |
| Flow Rate | 1.71 | gal/min | | Field | # |
| Ground Water Elevation | 431.44 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | -237 | mV | | Field | # |
| pH, Field (SM4500B) | 7.98 | pH_Units | | Field | # |
| Sample Depth | 135.00 | Feet | | Field | # |
| Specific Conductance, Field | 464 | umhos/cm | 1 | Field | # |
| Temperature | 17.93 | Deg. C | | Field | # |
| Total Well Depth | 142.60 | Feet | | Field | # |
| Volume in Water Column | 140.84 | Gallons | | Field | # |
| Water Level After Purge | 85.13 | Feet | | Field | # |
| Well Volumes Purged | 1.10 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.11 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.12 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 37.0 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 40.9 | mg/L | 0.11 | SW846 6020A | # |
| Iron, Dissolved | 1.3 | mg/L | 0.056 | SW846 6020A | # |
| Iron, Total | 1.9 | mg/L | 0.056 | SW846 6020A | # |
| Magnesium, Dissolved | 4.4 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 4.4 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.12 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.13 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 0.95 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 0.92 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 16.0 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 15.8 | mg/L | 0.11 | SW846 6020A | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 92 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 92 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 34.4 | mg/L | 2.0 | EPA 300.0 | # |
| Fluoride | 0.22 | mg/L | 0.20 | EPA 300.0 | # |
| pH | 8.25 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 330 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 26.8 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 184 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 0.53 | mg/L | 0.50 | SM5310B-14 | # |
| Turbidity | 16 | NTU | 0.30 | SM2130B-2011 | # |

# Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP038W | Collected | 05/08/2024 12:24 |
| Lab Sample ID | 3358730003 | Lab Receipt | 05/08/2024 16:25 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 19.05 | Feet | | Field | # |
| Dissolved Oxygen | 0.04 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 454.05 | Feet | | Field | # |
| Flow Rate | 0.82 | gal/min | | Field | # |
| Ground Water Elevation | 435.00 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | -233 | mV | | Field | # |
| pH, Field (SM4500B) | 7.80 | pH_Units | | Field | # |
| Sample Depth | 46.00 | Feet | | Field | # |
| Specific Conductance, Field | 649 | umhos/cm | 1 | Field | # |
| Temperature | 20.83 | Deg. C | | Field | # |
| Total Well Depth | 52.00 | Feet | | Field | # |
| Volume in Water Column | 48.44 | Gallons | | Field | # |
| Water Level After Purge | 36.45 | Feet | | Field | # |
| Well Volumes Purged | 1.02 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.074 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.081 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 51.2 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 56.6 | mg/L | 0.11 | SW846 6020A | # |
| Iron, Dissolved | 3.3 | mg/L | 0.056 | SW846 6020A | # |
| Iron, Total | 2.9 | mg/L | 0.056 | SW846 6020A | # |
| Magnesium, Dissolved | 5.9 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 5.9 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.094 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.096 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 1.0 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 1.0 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 13.9 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 14.7 | mg/L | 0.11 | SW846 6020A | # |
| **VOLATILE ORGANICS** | | | | | |
| Toluene | 11.7 | ug/L | 1.0 | SW846 8260B | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 64 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 64 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 98.1 | mg/L | 2.0 | EPA 300.0 | # |
| Fluoride | 0.23 | mg/L | 0.20 | EPA 300.0 | # |
| pH | 8.02 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 455 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 12.3 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 338 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 0.52 | mg/L | 0.50 | SM5310B-14 | # |
| Turbidity | 45 | NTU | 0.30 | SM2130B-2011 | # |

## Detected Results Summary

Sample - FFMP038W (cont.)

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP039W | Collected | 05/08/2024 12:47 |
| Lab Sample ID | 3358730004 | Lab Receipt | 05/08/2024 16:25 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 12.92 | Feet | | Field | # |
| Elev Top MW Casing above MSL | 455.65 | Feet | | Field | # |
| Flow Rate | 2.04 | gal/min | | Field | # |
| Ground Water Elevation | 442.73 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | 111 | mV | | Field | # |
| pH, Field (SM4500B) | 5.72 | pH_Units | | Field | # |
| Sample Depth | 118.00 | Feet | | Field | # |
| Specific Conductance, Field | 1378 | umhos/cm | 1 | Field | # |
| Temperature | 14.31 | Deg. C | | Field | # |
| Total Well Depth | 131.50 | Feet | | Field | # |
| Turbidity, Field | 1 | NTU | 1 | Field | # |
| Volume in Water Column | 174.31 | Gallons | | Field | # |
| Water Level After Purge | 20.68 | Feet | | Field | # |
| Well Volumes Purged | 1.25 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.084 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.082 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 61.1 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 63.5 | mg/L | 0.11 | SW846 6020A | # |
| Iron, Dissolved | 0.15 | mg/L | 0.056 | SW846 6020A | # |
| Iron, Total | 0.73 | mg/L | 0.056 | SW846 6020A | # |
| Magnesium, Dissolved | 24.4 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 24.0 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.71 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.77 | mg/L | 0.0056 | SW846 6020A | # |
| Nickel, Total | 0.0073 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 6.5 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 6.4 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 71.7 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 69.5 | mg/L | 0.11 | SW846 6020A | # |
| Zinc, Dissolved | 0.0064 | mg/L | 0.0056 | SW846 6020A | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 45 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 45 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 243 | mg/L | 5.0 | EPA 300.0 | # |
| Nitrate-N | 3.4 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 7.15 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 976 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 48.1 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 650 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 1.3 | mg/L | 0.50 | SM5310B-14 | # |
| Turbidity | 5.8 | NTU | 0.30 | SM2130B-2011 | # |

# Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP002W | Collected | 05/08/2024 14:29 |
| Lab Sample ID | 3358730005 | Lab Receipt | 05/08/2024 16:25 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 53.67 | Feet | | Field | # |
| Dissolved Oxygen | 7.54 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 613.20 | Feet | | Field | # |
| Flow Rate | 1.62 | gal/min | | Field | # |
| Ground Water Elevation | 559.53 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | 358 | mV | | Field | # |
| pH, Field (SM4500B) | 4.47 | pH_Units | | Field | # |
| Sample Depth | 85.00 | Feet | | Field | # |
| Specific Conductance, Field | 337 | umhos/cm | 1 | Field | # |
| Temperature | 16.09 | Deg. C | | Field | # |
| Total Well Depth | 90.02 | Feet | | Field | # |
| Volume in Water Column | 53.43 | Gallons | | Field | # |
| Water Level After Purge | 75.40 | Feet | | Field | # |
| Well Volumes Purged | 1.09 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.052 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.053 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 15.0 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 15.2 | mg/L | 0.11 | SW846 6020A | # |
| Chromium, Total | 0.0029 | mg/L | 0.0022 | SW846 6020A | # |
| Cobalt, Total | 0.018 | mg/L | 0.0056 | SW846 6020A | # |
| Copper, Dissolved | 0.020 | mg/L | 0.0056 | SW846 6020A | # |
| Copper, Total | 0.024 | mg/L | 0.0056 | SW846 6020A | # |
| Iron, Total | 0.21 | mg/L | 0.056 | SW846 6020A | # |
| Lead, Dissolved | 0.0042 | mg/L | 0.0022 | SW846 6020A | # |
| Lead, Total | 0.0058 | mg/L | 0.0022 | SW846 6020A | # |
| Magnesium, Dissolved | 7.0 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 6.8 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.20 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.20 | mg/L | 0.0056 | SW846 6020A | # |
| Nickel, Total | 0.031 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 1.2 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 1.1 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 14.5 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 13.6 | mg/L | 0.11 | SW846 6020A | # |
| Zinc, Dissolved | 0.031 | mg/L | 0.0056 | SW846 6020A | # |
| Zinc, Total | 0.031 | mg/L | 0.0056 | SW846 6020A | # |
| **WET CHEMISTRY** | | | | | |
| Chloride | 17.3 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 18.0 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 5.76 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 242 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 11.9 | mg/L | 2.0 | EPA 300.0 | # |

## Detected Results Summary

Sample - FFMP002W (cont.)

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **WET CHEMISTRY (cont.)** | | | | | |
| Total Dissolved Solids | 186 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 0.61 | mg/L | 0.50 | SM5310B-14 | # |
| Turbidity | 1.7 | NTU | 0.30 | SM2130B-2011 | # |

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP031W | Collected | 05/08/2024 14:56 |
| Lab Sample ID | 3358730006 | Lab Receipt | 05/08/2024 16:25 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 59.04 | Feet | | Field | # |
| Elev Top MW Casing above MSL | 612.66 | Feet | | Field | # |
| Flow Rate | 1.78 | gal/min | | Field | # |
| Ground Water Elevation | 553.62 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | -317 | mV | | Field | # |
| pH, Field (SM4500B) | 8.17 | pH_Units | | Field | # |
| Sample Depth | 130.00 | Feet | | Field | # |
| Specific Conductance, Field | 482 | umhos/cm | 1 | Field | # |
| Temperature | 17.25 | Deg. C | | Field | # |
| Total Well Depth | 142.70 | Feet | | Field | # |
| Turbidity, Field | 1 | NTU | 1 | Field | # |
| Volume in Water Column | 122.98 | Gallons | | Field | # |
| Water Level After Purge | 102.82 | Feet | | Field | # |
| Well Volumes Purged | 1.01 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.052 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.051 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 44.1 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 47.4 | mg/L | 0.11 | SW846 6020A | # |
| Iron, Dissolved | 4.1 | mg/L | 0.056 | SW846 6020A | # |
| Iron, Total | 4.1 | mg/L | 0.056 | SW846 6020A | # |
| Magnesium, Dissolved | 4.6 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 4.5 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.39 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.40 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 1.5 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 1.4 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 10.1 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 9.6 | mg/L | 0.11 | SW846 6020A | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 87 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 87 | mg/L | 5 | SM2320B-2011 | # |
| Ammonia-N, Low Level | 0.14 | mg/L | 0.10 | SM 4500-NH3G | # |
| Chloride | 22.3 | mg/L | 2.0 | EPA 300.0 | # |
| Fluoride | 0.21 | mg/L | 0.20 | EPA 300.0 | # |
| pH | 8.11 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 333 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 50.5 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 194 | mg/L | 25 | SM2540C-15 | # |
| Turbidity | 27 | NTU | 0.30 | SM2130B-2011 | # |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP035W | Collected | 05/08/2024 10:24 |
| Lab Sample ID | 3358730001 | Lab Receipt | 05/08/2024 16:25 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 41.97 | | Feet | | Field | 1 | 05/08/2024 10:29 | BGS | F |
| Dissolved Oxygen | 4.98 | | mg/L | 0.01 | Field | 1 | 05/08/2024 10:29 | BGS | F |
| Elev Top MW Casing above MSL | 477.56 | | Feet | | Field | 1 | 05/08/2024 10:29 | BGS | F |
| Flow Rate | 0.47 | | gal/min | | Field | 1 | 05/08/2024 10:29 | BGS | F |
| Ground Water Elevation | 435.59 | | ft/MSL | | Field | 1 | 05/08/2024 10:29 | BGS | F |
| Oxidation-Reduction Potential | 242 | | mV | | Field | 1 | 05/08/2024 10:29 | BGS | F |
| pH, Field (SM4500B) | 5.83 | | pH_Units | | Field | 1 | 05/08/2024 10:29 | BGS | F |
| Sample Depth | 65.00 | | Feet | | Field | 1 | 05/08/2024 10:29 | BGS | F |
| Specific Conductance, Field | 1305 | | umhos/cm | 1 | Field | 1 | 05/08/2024 10:29 | BGS | F |
| Temperature | 21.83 | | Deg. C | | Field | 1 | 05/08/2024 10:29 | BGS | F |
| Total Well Depth | 71.80 | | Feet | | Field | 1 | 05/08/2024 10:29 | BGS | F |
| Turbidity, Field | ND | ND | NTU | 1 | Field | 1 | 05/08/2024 10:29 | BGS | F |
| Volume in Water Column | 43.85 | | Gallons | | Field | 1 | 05/08/2024 10:29 | BGS | F |
| Water Level After Purge | 44.90 | | Feet | | Field | 1 | 05/08/2024 10:29 | BGS | F |
| Well Volumes Purged | 1.07 | | Vol | | Field | 1 | 05/08/2024 10:29 | 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 | 05/16/2024 03:08 | BST | 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 | 05/15/2024 11:23 | MO | E1 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/20/2024 16:00 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Barium, Dissolved | 0.12 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:00 | MO | D1 |
| Barium, Total | 0.12 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/20/2024 16:00 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Calcium, Dissolved | 63.5 | 3 | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:00 | MO | D1 |
| Calcium, Total | 64.7 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Chromium, Dissolved | 0.0032 | | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:00 | MO | D1 |
| Chromium, Total | 0.013 | | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Cobalt, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:00 | MO | D1 |
| Copper, Total | 0.0063 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Iron, Dissolved | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/20/2024 16:00 | MO | D1 |
| Iron, Total | 0.095 | | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:00 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Magnesium, Dissolved | 22.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:00 | MO | D1 |
| Magnesium, Total | 22.1 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Manganese, Dissolved | 0.13 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:00 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP035W | Collected | 05/08/2024 10:24 |
| Lab Sample ID | 3358730001 | Lab Receipt | 05/08/2024 16:25 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.14 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/14/2024 14:16 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/13/2024 13:16 | JSE | E |
| Nickel, Total | 0.047 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Potassium, Dissolved | 5.2 | | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:00 | MO | D1 |
| Potassium, Total | 5.1 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Selenium, Dissolved | ND | ND,4 | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:00 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:00 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Sodium, Dissolved | 68.7 | 5 | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:00 | MO | D1 |
| Sodium, Total | 66.8 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Vanadium, Total | ND | ND,6 | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:23 | MO | E1 |
| Zinc, Dissolved | 0.017 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:00 | MO | D1 |
| Zinc, Total | 0.017 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:23 | 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 | 05/16/2024 03:08 | BST | J |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Bromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP035W | Collected | 05/08/2024 10:24 |
| Lab Sample ID | 3358730001 | Lab Receipt | 05/08/2024 16:25 |

## 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 | 05/16/2024 03:08 | BST | J |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Chloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Iodomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Trichlorofluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:08 | BST | J |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 112% | 62 – 133 | 05/16/2024 03:08 | |
| 4-Bromofluorobenzene | 460-00-4 | 96.7% | 79 – 114 | 05/16/2024 03:08 | |
| Dibromofluoromethane | 1868-53-7 | 92.3% | 78 – 116 | 05/16/2024 03:08 | |
| Toluene-d8 | 2037-26-5 | 92.2% | 76 – 127 | 05/16/2024 03:08 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 71 | | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 00:19 | KMV | A |
| Alkalinity, Total | 71 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 00:19 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 18:48 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/09/2024 12:30 | KMS | C |
| Chloride | 191 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/09/2024 13:12 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/09/2024 13:12 | J1W | A |
| Nitrate-N | 10.7 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/09/2024 13:12 | J1W | A |
| pH | 7.27 | 2 | pH_Units | | S4500HB-11 | 1 | 05/10/2024 01:35 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 11:13 | AKH | I |
| Specific Conductance | 911 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/10/2024 16:30 | BLP | A |
| Sulfate | 50.4 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/09/2024 13:12 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP035W | Collected | 05/08/2024 10:24 |
| Lab Sample ID | 3358730001 | Lab Receipt | 05/08/2024 16:25 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 586 | | mg/L | 25 | SM2540C-15 | 1 | 05/09/2024 15:45 | RAG | A |
| Total Organic Carbon (TOC) | 1.4 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/09/2024 19:23 | PAG | G |
| Turbidity | 0.45 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/09/2024 10:38 | NPF | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP036W | Collected | 05/08/2024 10:14 |
| Lab Sample ID | 3358730002 | Lab Receipt | 05/08/2024 16:25 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 46.79 | | Feet | | Field | 1 | 05/08/2024 10:14 | BGS | F |
| Dissolved Oxygen | 0.01 | | mg/L | 0.01 | Field | 1 | 05/08/2024 10:14 | BGS | F |
| Elev Top MW Casing above MSL | 478.23 | | Feet | | Field | 1 | 05/08/2024 10:14 | BGS | F |
| Flow Rate | 1.71 | | gal/min | | Field | 1 | 05/08/2024 10:14 | BGS | F |
| Ground Water Elevation | 431.44 | | ft/MSL | | Field | 1 | 05/08/2024 10:14 | BGS | F |
| Oxidation-Reduction Potential | -237 | | mV | | Field | 1 | 05/08/2024 10:14 | BGS | F |
| pH, Field (SM4500B) | 7.98 | | pH_Units | | Field | 1 | 05/08/2024 10:14 | BGS | F |
| Sample Depth | 135.00 | | Feet | | Field | 1 | 05/08/2024 10:14 | BGS | F |
| Specific Conductance, Field | 464 | | umhos/cm | 1 | Field | 1 | 05/08/2024 10:14 | BGS | F |
| Temperature | 17.93 | | Deg. C | | Field | 1 | 05/08/2024 10:14 | BGS | F |
| Total Well Depth | 142.60 | | Feet | | Field | 1 | 05/08/2024 10:14 | BGS | F |
| Turbidity, Field | ND | ND | NTU | 1 | Field | 1 | 05/08/2024 10:14 | BGS | F |
| Volume in Water Column | 140.84 | | Gallons | | Field | 1 | 05/08/2024 10:14 | BGS | F |
| Water Level After Purge | 85.13 | | Feet | | Field | 1 | 05/08/2024 10:14 | BGS | F |
| Well Volumes Purged | 1.10 | | Vol | | Field | 1 | 05/08/2024 10:14 | 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 | 05/16/2024 03:28 | BST | 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 | 05/15/2024 11:25 | MO | E1 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/20/2024 16:03 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Barium, Dissolved | 0.11 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:03 | MO | D1 |
| Barium, Total | 0.12 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/20/2024 16:03 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Calcium, Dissolved | 37.0 | | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:03 | MO | D1 |
| Calcium, Total | 40.9 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:03 | MO | D1 |
| Chromium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Cobalt, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:03 | MO | D1 |
| Copper, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Iron, Dissolved | 1.3 | | mg/L | 0.056 | SW846 6020A | 1 | 05/20/2024 16:03 | MO | D1 |
| Iron, Total | 1.9 | | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:03 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Magnesium, Dissolved | 4.4 | | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:03 | MO | D1 |
| Magnesium, Total | 4.4 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Manganese, Dissolved | 0.12 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:03 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP036W | Collected | 05/08/2024 10:14 |
| Lab Sample ID | 3358730002 | Lab Receipt | 05/08/2024 16:25 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.13 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/14/2024 14:17 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/13/2024 13:17 | JSE | E |
| Nickel, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Potassium, Dissolved | 0.95 | | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:03 | MO | D1 |
| Potassium, Total | 0.92 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Selenium, Dissolved | ND | ND,4 | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:03 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:03 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Sodium, Dissolved | 16.0 | 5 | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:03 | MO | D1 |
| Sodium, Total | 15.8 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Vanadium, Total | ND | ND,6 | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:25 | MO | E1 |
| Zinc, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:03 | MO | D1 |
| Zinc, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:25 | 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 | 05/16/2024 03:28 | BST | J |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Bromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP036W | Collected | 05/08/2024 10:14 |
| Lab Sample ID | 3358730002 | Lab Receipt | 05/08/2024 16:25 |

## 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 | 05/16/2024 03:28 | BST | J |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Chloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Iodomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Trichlorofluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:28 | BST | J |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 111% | 62 – 133 | 05/16/2024 03:28 | |
| 4-Bromofluorobenzene | 460-00-4 | 88.6% | 79 – 114 | 05/16/2024 03:28 | |
| Dibromofluoromethane | 1868-53-7 | 93.4% | 78 – 116 | 05/16/2024 03:28 | |
| Toluene-d8 | 2037-26-5 | 91.4% | 76 – 127 | 05/16/2024 03:28 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 92 | | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 00:29 | KMV | A |
| Alkalinity, Total | 92 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 00:29 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 18:51 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/09/2024 12:30 | KMS | C |
| Chloride | 34.4 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/09/2024 13:24 | J1W | A |
| Fluoride | 0.22 | | mg/L | 0.20 | EPA 300.0 | 2 | 05/09/2024 13:24 | J1W | A |
| Nitrate-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 05/09/2024 13:24 | J1W | A |
| pH | 8.25 | 2 | pH_Units | | S4500HB-11 | 1 | 05/10/2024 01:45 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 11:24 | AKH | I |
| Specific Conductance | 330 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/10/2024 16:30 | BLP | A |
| Sulfate | 26.8 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/09/2024 13:24 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP036W | Collected | 05/08/2024 10:14 |
| Lab Sample ID | 3358730002 | Lab Receipt | 05/08/2024 16:25 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 184 | | mg/L | 25 | SM2540C-15 | 1 | 05/09/2024 15:45 | RAG | A |
| Total Organic Carbon (TOC) | 0.53 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/09/2024 19:23 | PAG | G |
| Turbidity | 16 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/09/2024 10:38 | NPF | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP038W | Collected | 05/08/2024 12:24 |
| Lab Sample ID | 3358730003 | Lab Receipt | 05/08/2024 16:25 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 19.05 | | Feet | | Field | 1 | 05/08/2024 12:24 | BGS | F |
| Dissolved Oxygen | 0.04 | | mg/L | 0.01 | Field | 1 | 05/08/2024 12:24 | BGS | F |
| Elev Top MW Casing above MSL | 454.05 | | Feet | | Field | 1 | 05/08/2024 12:24 | BGS | F |
| Flow Rate | 0.82 | | gal/min | | Field | 1 | 05/08/2024 12:24 | BGS | F |
| Ground Water Elevation | 435.00 | | ft/MSL | | Field | 1 | 05/08/2024 12:24 | BGS | F |
| Oxidation-Reduction Potential | -233 | | mV | | Field | 1 | 05/08/2024 12:24 | BGS | F |
| pH, Field (SM4500B) | 7.80 | | pH_Units | | Field | 1 | 05/08/2024 12:24 | BGS | F |
| Sample Depth | 46.00 | | Feet | | Field | 1 | 05/08/2024 12:24 | BGS | F |
| Specific Conductance, Field | 649 | | umhos/cm | 1 | Field | 1 | 05/08/2024 12:24 | BGS | F |
| Temperature | 20.83 | | Deg. C | | Field | 1 | 05/08/2024 12:24 | BGS | F |
| Total Well Depth | 52.00 | | Feet | | Field | 1 | 05/08/2024 12:24 | BGS | F |
| Turbidity, Field | ND | ND | NTU | 1 | Field | 1 | 05/08/2024 12:24 | BGS | F |
| Volume in Water Column | 48.44 | | Gallons | | Field | 1 | 05/08/2024 12:24 | BGS | F |
| Water Level After Purge | 36.45 | | Feet | | Field | 1 | 05/08/2024 12:24 | BGS | F |
| Well Volumes Purged | 1.02 | | Vol | | Field | 1 | 05/08/2024 12:24 | 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 | 05/16/2024 03:49 | BST | 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 | 05/15/2024 11:27 | MO | E1 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/20/2024 16:05 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Barium, Dissolved | 0.074 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:05 | MO | D1 |
| Barium, Total | 0.081 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/20/2024 16:05 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Calcium, Dissolved | 51.2 | | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:05 | MO | D1 |
| Calcium, Total | 56.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:05 | MO | D1 |
| Chromium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Cobalt, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:05 | MO | D1 |
| Copper, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Iron, Dissolved | 3.3 | | mg/L | 0.056 | SW846 6020A | 1 | 05/20/2024 16:05 | MO | D1 |
| Iron, Total | 2.9 | | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:05 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Magnesium, Dissolved | 5.9 | | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:05 | MO | D1 |
| Magnesium, Total | 5.9 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Manganese, Dissolved | 0.094 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:05 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP038W | Collected | 05/08/2024 12:24 |
| Lab Sample ID | 3358730003 | Lab Receipt | 05/08/2024 16:25 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.096 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/14/2024 14:18 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/13/2024 13:21 | JSE | E |
| Nickel, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Potassium, Dissolved | 1.0 | | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:05 | MO | D1 |
| Potassium, Total | 1.0 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Selenium, Dissolved | ND | ND,4 | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:05 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:05 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Sodium, Dissolved | 13.9 | 5 | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:05 | MO | D1 |
| Sodium, Total | 14.7 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Vanadium, Total | ND | ND,6 | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:27 | MO | E1 |
| Zinc, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:05 | MO | D1 |
| Zinc, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:27 | 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 | 05/16/2024 03:49 | BST | J |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Bromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP038W | Collected | 05/08/2024 12:24 |
| Lab Sample ID | 3358730003 | Lab Receipt | 05/08/2024 16:25 |

## 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 | 05/16/2024 03:49 | BST | J |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Chloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Iodomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Toluene | 11.7 | | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Trichlorofluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 03:49 | BST | J |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 113% | 62 – 133 | 05/16/2024 03:49 | |
| 4-Bromofluorobenzene | 460-00-4 | 101% | 79 – 114 | 05/16/2024 03:49 | |
| Dibromofluoromethane | 1868-53-7 | 92.4% | 78 – 116 | 05/16/2024 03:49 | |
| Toluene-d8 | 2037-26-5 | 94.2% | 76 – 127 | 05/16/2024 03:49 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 64 | | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 00:40 | KMV | A |
| Alkalinity, Total | 64 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 00:40 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.50 | SM 4500-NH3G | 5 | 05/14/2024 18:12 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/09/2024 12:30 | KMS | C |
| Chloride | 98.1 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/09/2024 13:35 | J1W | A |
| Fluoride | 0.23 | | mg/L | 0.20 | EPA 300.0 | 2 | 05/09/2024 13:35 | J1W | A |
| Nitrate-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 05/09/2024 13:35 | J1W | A |
| pH | 8.02 | 2 | pH_Units | | S4500HB-11 | 1 | 05/10/2024 01:56 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 11:21 | AKH | I |
| Specific Conductance | 455 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/10/2024 16:30 | BLP | A |
| Sulfate | 12.3 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/09/2024 13:35 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP038W | Collected | 05/08/2024 12:24 |
| Lab Sample ID | 3358730003 | Lab Receipt | 05/08/2024 16:25 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 338 | | mg/L | 25 | SM2540C-15 | 1 | 05/09/2024 15:45 | RAG | A |
| Total Organic Carbon (TOC) | 0.52 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/09/2024 19:23 | PAG | G |
| Turbidity | 45 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/09/2024 10:38 | NPF | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP039W | Collected | 05/08/2024 12:47 |
| Lab Sample ID | 3358730004 | Lab Receipt | 05/08/2024 16:25 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 12.92 | | Feet | | Field | 1 | 05/08/2024 12:47 | BGS | F |
| Dissolved Oxygen | ND | ND | mg/L | 0.01 | Field | 1 | 05/08/2024 12:47 | BGS | F |
| Elev Top MW Casing above MSL | 455.65 | | Feet | | Field | 1 | 05/08/2024 12:47 | BGS | F |
| Flow Rate | 2.04 | | gal/min | | Field | 1 | 05/08/2024 12:47 | BGS | F |
| Ground Water Elevation | 442.73 | | ft/MSL | | Field | 1 | 05/08/2024 12:47 | BGS | F |
| Oxidation-Reduction Potential | 111 | | mV | | Field | 1 | 05/08/2024 12:47 | BGS | F |
| pH, Field (SM4500B) | 5.72 | | pH_Units | | Field | 1 | 05/08/2024 12:47 | BGS | F |
| Sample Depth | 118.00 | | Feet | | Field | 1 | 05/08/2024 12:47 | BGS | F |
| Specific Conductance, Field | 1378 | | umhos/cm | 1 | Field | 1 | 05/08/2024 12:47 | BGS | F |
| Temperature | 14.31 | | Deg. C | | Field | 1 | 05/08/2024 12:47 | BGS | F |
| Total Well Depth | 131.50 | | Feet | | Field | 1 | 05/08/2024 12:47 | BGS | F |
| Turbidity, Field | 1 | | NTU | 1 | Field | 1 | 05/08/2024 12:47 | BGS | F |
| Volume in Water Column | 174.31 | | Gallons | | Field | 1 | 05/08/2024 12:47 | BGS | F |
| Water Level After Purge | 20.68 | | Feet | | Field | 1 | 05/08/2024 12:47 | BGS | F |
| Well Volumes Purged | 1.25 | | Vol | | Field | 1 | 05/08/2024 12:47 | 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 | 05/16/2024 04:09 | BST | 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 | 05/15/2024 11:29 | MO | E1 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/20/2024 16:07 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Barium, Dissolved | 0.084 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:07 | MO | D1 |
| Barium, Total | 0.082 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/20/2024 16:07 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Calcium, Dissolved | 61.1 | | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:07 | MO | D1 |
| Calcium, Total | 63.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:07 | MO | D1 |
| Chromium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Cobalt, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:07 | MO | D1 |
| Copper, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Iron, Dissolved | 0.15 | | mg/L | 0.056 | SW846 6020A | 1 | 05/20/2024 16:07 | MO | D1 |
| Iron, Total | 0.73 | | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:07 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Magnesium, Dissolved | 24.4 | | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:07 | MO | D1 |
| Magnesium, Total | 24.0 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Manganese, Dissolved | 0.71 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:07 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP039W | Collected | 05/08/2024 12:47 |
| Lab Sample ID | 3358730004 | Lab Receipt | 05/08/2024 16:25 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.77 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/14/2024 14:19 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/13/2024 13:22 | JSE | E |
| Nickel, Total | 0.0073 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Potassium, Dissolved | 6.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:07 | MO | D1 |
| Potassium, Total | 6.4 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Selenium, Dissolved | ND | ND,4 | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:07 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:07 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Sodium, Dissolved | 71.7 | 5 | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:07 | MO | D1 |
| Sodium, Total | 69.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Vanadium, Total | ND | ND,6 | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:29 | MO | E1 |
| Zinc, Dissolved | 0.0064 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:07 | MO | D1 |
| Zinc, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:29 | 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 | 05/16/2024 04:09 | BST | J |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Bromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP039W | Collected | 05/08/2024 12:47 |
| Lab Sample ID | 3358730004 | Lab Receipt | 05/08/2024 16:25 |

## 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 | 05/16/2024 04:09 | BST | J |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Chloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Iodomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Trichlorofluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:09 | BST | J |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 116% | 62 – 133 | 05/16/2024 04:09 | |
| 4-Bromofluorobenzene | 460-00-4 | 90.3% | 79 – 114 | 05/16/2024 04:09 | |
| Dibromofluoromethane | 1868-53-7 | 97.8% | 78 – 116 | 05/16/2024 04:09 | |
| Toluene-d8 | 2037-26-5 | 94.4% | 76 – 127 | 05/16/2024 04:09 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 45 | | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 00:51 | KMV | A |
| Alkalinity, Total | 45 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 00:51 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.50 | SM 4500-NH3G | 5 | 05/14/2024 17:54 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/09/2024 12:30 | KMS | C |
| Chloride | 243 | | mg/L | 5.0 | EPA 300.0 | 5 | 05/15/2024 18:29 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/09/2024 14:21 | J1W | A |
| Nitrate-N | 3.4 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/09/2024 14:21 | J1W | A |
| pH | 7.15 | 2 | pH_Units | | S4500HB-11 | 1 | 05/10/2024 02:43 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 11:32 | AKH | I |
| Specific Conductance | 976 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/10/2024 16:30 | BLP | A |
| Sulfate | 48.1 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/09/2024 14:21 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP039W | Collected | 05/08/2024 12:47 |
| Lab Sample ID | 3358730004 | Lab Receipt | 05/08/2024 16:25 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 650 | | mg/L | 25 | SM2540C-15 | 1 | 05/09/2024 15:45 | RAG | A |
| Total Organic Carbon (TOC) | 1.3 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/09/2024 19:23 | PAG | G |
| Turbidity | 5.8 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/09/2024 10:38 | NPF | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP002W | Collected | 05/08/2024 14:29 |
| Lab Sample ID | 3358730005 | Lab Receipt | 05/08/2024 16:25 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 53.67 | | Feet | | Field | 1 | 05/08/2024 14:30 | BGS | F |
| Dissolved Oxygen | 7.54 | | mg/L | 0.01 | Field | 1 | 05/08/2024 14:30 | BGS | F |
| Elev Top MW Casing above MSL | 613.20 | | Feet | | Field | 1 | 05/08/2024 14:30 | BGS | F |
| Flow Rate | 1.62 | | gal/min | | Field | 1 | 05/08/2024 14:30 | BGS | F |
| Ground Water Elevation | 559.53 | | ft/MSL | | Field | 1 | 05/08/2024 14:30 | BGS | F |
| Oxidation-Reduction Potential | 358 | | mV | | Field | 1 | 05/08/2024 14:30 | BGS | F |
| pH, Field (SM4500B) | 4.47 | | pH_Units | | Field | 1 | 05/08/2024 14:30 | BGS | F |
| Sample Depth | 85.00 | | Feet | | Field | 1 | 05/08/2024 14:30 | BGS | F |
| Specific Conductance, Field | 337 | | umhos/cm | 1 | Field | 1 | 05/08/2024 14:30 | BGS | F |
| Temperature | 16.09 | | Deg. C | | Field | 1 | 05/08/2024 14:30 | BGS | F |
| Total Well Depth | 90.02 | | Feet | | Field | 1 | 05/08/2024 14:30 | BGS | F |
| Turbidity, Field | ND | ND | NTU | 1 | Field | 1 | 05/08/2024 14:30 | BGS | F |
| Volume in Water Column | 53.43 | | Gallons | | Field | 1 | 05/08/2024 14:30 | BGS | F |
| Water Level After Purge | 75.40 | | Feet | | Field | 1 | 05/08/2024 14:30 | BGS | F |
| Well Volumes Purged | 1.09 | | Vol | | Field | 1 | 05/08/2024 14:30 | 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 | 05/16/2024 04:30 | BST | 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 | 05/15/2024 11:46 | MO | E1 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/20/2024 16:09 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Barium, Dissolved | 0.052 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:09 | MO | D1 |
| Barium, Total | 0.053 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/20/2024 16:09 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Calcium, Dissolved | 15.0 | 3 | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:09 | MO | D1 |
| Calcium, Total | 15.2 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:09 | MO | D1 |
| Chromium, Total | 0.0029 | | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Cobalt, Total | 0.018 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Copper, Dissolved | 0.020 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:09 | MO | D1 |
| Copper, Total | 0.024 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Iron, Dissolved | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/20/2024 16:09 | MO | D1 |
| Iron, Total | 0.21 | | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Lead, Dissolved | 0.0042 | | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:09 | MO | D1 |
| Lead, Total | 0.0058 | | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Magnesium, Dissolved | 7.0 | | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:09 | MO | D1 |
| Magnesium, Total | 6.8 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Manganese, Dissolved | 0.20 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:09 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP002W | Collected | 05/08/2024 14:29 |
| Lab Sample ID | 3358730005 | Lab Receipt | 05/08/2024 16:25 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.20 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/14/2024 14:23 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/13/2024 13:26 | JSE | E |
| Nickel, Total | 0.031 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Potassium, Dissolved | 1.2 | | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:09 | MO | D1 |
| Potassium, Total | 1.1 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Selenium, Dissolved | ND | ND,4 | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:09 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:09 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Sodium, Dissolved | 14.5 | 3,5 | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:09 | MO | D1 |
| Sodium, Total | 13.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Vanadium, Total | ND | ND,6 | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:46 | MO | E1 |
| Zinc, Dissolved | 0.031 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:09 | MO | D1 |
| Zinc, Total | 0.031 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:46 | 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 | 05/16/2024 04:30 | BST | J |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Bromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP002W | Collected | 05/08/2024 14:29 |
| Lab Sample ID | 3358730005 | Lab Receipt | 05/08/2024 16:25 |

## 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 | 05/16/2024 04:30 | BST | J |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Chloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Iodomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Trichlorofluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:30 | BST | J |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 114% | 62 – 133 | 05/16/2024 04:30 | |
| 4-Bromofluorobenzene | 460-00-4 | 99.4% | 79 – 114 | 05/16/2024 04:30 | |
| Dibromofluoromethane | 1868-53-7 | 94.1% | 78 – 116 | 05/16/2024 04:30 | |
| Toluene-d8 | 2037-26-5 | 94.6% | 76 – 127 | 05/16/2024 04:30 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | ND | ND | mg/L | 5 | SM2320B-2011 | 1 | 05/17/2024 15:50 | KMV | A |
| Alkalinity, Total | ND | ND,1 | mg/L | 5 | SM2320B-2011 | 1 | 05/17/2024 15:50 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 19:00 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/09/2024 12:30 | KMS | C |
| Chloride | 17.3 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/09/2024 14:33 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/09/2024 14:33 | J1W | A |
| Nitrate-N | 18.0 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/09/2024 14:33 | J1W | A |
| pH | 5.76 | 2 | pH_Units | | S4500HB-11 | 1 | 05/10/2024 02:53 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 11:28 | AKH | I |
| Specific Conductance | 242 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/10/2024 16:30 | BLP | A |
| Sulfate | 11.9 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/09/2024 14:33 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP002W | Collected | 05/08/2024 14:29 |
| Lab Sample ID | 3358730005 | Lab Receipt | 05/08/2024 16:25 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 186 | | mg/L | 25 | SM2540C-15 | 1 | 05/09/2024 15:45 | RAG | A |
| Total Organic Carbon (TOC) | 0.61 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/09/2024 19:23 | PAG | G |
| Turbidity | 1.7 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/09/2024 10:38 | NPF | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP031W | Collected | 05/08/2024 14:56 |
| Lab Sample ID | 3358730006 | Lab Receipt | 05/08/2024 16:25 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 59.04 | | Feet | | Field | 1 | 05/08/2024 14:56 | BGS | F |
| Dissolved Oxygen | ND | ND | mg/L | 0.01 | Field | 1 | 05/08/2024 14:56 | BGS | F |
| Elev Top MW Casing above MSL | 612.66 | | Feet | | Field | 1 | 05/08/2024 14:56 | BGS | F |
| Flow Rate | 1.78 | | gal/min | | Field | 1 | 05/08/2024 14:56 | BGS | F |
| Ground Water Elevation | 553.62 | | ft/MSL | | Field | 1 | 05/08/2024 14:56 | BGS | F |
| Oxidation-Reduction Potential | -317 | | mV | | Field | 1 | 05/08/2024 14:56 | BGS | F |
| pH, Field (SM4500B) | 8.17 | | pH_Units | | Field | 1 | 05/08/2024 14:56 | BGS | F |
| Sample Depth | 130.00 | | Feet | | Field | 1 | 05/08/2024 14:56 | BGS | F |
| Specific Conductance, Field | 482 | | umhos/cm | 1 | Field | 1 | 05/08/2024 14:56 | BGS | F |
| Temperature | 17.25 | | Deg. C | | Field | 1 | 05/08/2024 14:56 | BGS | F |
| Total Well Depth | 142.70 | | Feet | | Field | 1 | 05/08/2024 14:56 | BGS | F |
| Turbidity, Field | 1 | | NTU | 1 | Field | 1 | 05/08/2024 14:56 | BGS | F |
| Volume in Water Column | 122.98 | | Gallons | | Field | 1 | 05/08/2024 14:56 | BGS | F |
| Water Level After Purge | 102.82 | | Feet | | Field | 1 | 05/08/2024 14:56 | BGS | F |
| Well Volumes Purged | 1.01 | | Vol | | Field | 1 | 05/08/2024 14:56 | 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 | 05/16/2024 04:50 | BST | 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 | 05/15/2024 11:48 | MO | E1 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/20/2024 16:15 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Barium, Dissolved | 0.052 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:15 | MO | D1 |
| Barium, Total | 0.051 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/20/2024 16:15 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Calcium, Dissolved | 44.1 | | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:15 | MO | D1 |
| Calcium, Total | 47.4 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:15 | MO | D1 |
| Chromium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Cobalt, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:15 | MO | D1 |
| Copper, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Iron, Dissolved | 4.1 | | mg/L | 0.056 | SW846 6020A | 1 | 05/20/2024 16:15 | MO | D1 |
| Iron, Total | 4.1 | | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:15 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Magnesium, Dissolved | 4.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:15 | MO | D1 |
| Magnesium, Total | 4.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Manganese, Dissolved | 0.39 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:15 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP031W | Collected | 05/08/2024 14:56 |
| Lab Sample ID | 3358730006 | Lab Receipt | 05/08/2024 16:25 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.40 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/14/2024 14:24 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/13/2024 13:28 | JSE | E |
| Nickel, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Potassium, Dissolved | 1.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:15 | MO | D1 |
| Potassium, Total | 1.4 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Selenium, Dissolved | ND | ND,4 | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:15 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/20/2024 16:15 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Sodium, Dissolved | 10.1 | 5 | mg/L | 0.11 | SW846 6020A | 1 | 05/20/2024 16:15 | MO | D1 |
| Sodium, Total | 9.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Vanadium, Total | ND | ND,6 | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:48 | MO | E1 |
| Zinc, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/20/2024 16:15 | MO | D1 |
| Zinc, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:48 | 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 | 05/16/2024 04:50 | BST | J |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Bromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP031W | Collected | 05/08/2024 14:56 |
| Lab Sample ID | 3358730006 | Lab Receipt | 05/08/2024 16:25 |

## 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 | 05/16/2024 04:50 | BST | J |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Chloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Iodomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Trichlorofluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/16/2024 04:50 | BST | J |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 111% | 62 – 133 | 05/16/2024 04:50 | |
| 4-Bromofluorobenzene | 460-00-4 | 86.8% | 79 – 114 | 05/16/2024 04:50 | |
| Dibromofluoromethane | 1868-53-7 | 91.6% | 78 – 116 | 05/16/2024 04:50 | |
| Toluene-d8 | 2037-26-5 | 88.3% | 76 – 127 | 05/16/2024 04:50 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 87 | | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 01:47 | KMV | A |
| Alkalinity, Total | 87 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 01:47 | KMV | A |
| Ammonia-N, Low Level | 0.14 | | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/20/2024 15:38 | AYS | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/09/2024 12:30 | KMS | C |
| Chloride | 22.3 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/09/2024 14:44 | J1W | A |
| Fluoride | 0.21 | | mg/L | 0.20 | EPA 300.0 | 2 | 05/09/2024 14:44 | J1W | A |
| Nitrate-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 05/09/2024 14:44 | J1W | A |
| pH | 8.11 | 2 | pH_Units | | S4500HB-11 | 1 | 05/10/2024 03:03 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 11:09 | AKH | I |
| Specific Conductance | 333 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/10/2024 16:30 | BLP | A |
| Sulfate | 50.5 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/09/2024 14:44 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP031W | Collected | 05/08/2024 14:56 |
| Lab Sample ID | 3358730006 | Lab Receipt | 05/08/2024 16:25 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 194 | | mg/L | 25 | SM2540C-15 | 1 | 05/09/2024 15:45 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-14 | 1 | 05/09/2024 19:23 | PAG | G |
| Turbidity | 27 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/09/2024 10:38 | NPF | A |

## Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3358730001 | FFMP035W | 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 | |
| 3358730002 | FFMP036W | 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 | |
| 3358730003 | FFMP038W | 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 | |

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3358730004 | FFMP039W | 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 | |
| 3358730005 | FFMP002W | 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 | |
| 3358730006 | FFMP031W | 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 |
|---|---|---|---|---|---|---|---|
| 3358730001 | FFMP035W | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1197733 | 05/09/2024 04:12 | ANN | SW846 6020A | 1206283 |
| | | SW846 3015A | 1197724 | 05/09/2024 02:35 | ANN | SW846 6020A | 1202946 |
| | | SW846 7470A | 1202340 | 05/14/2024 10:50 | JSE | SW846 7470A | 1202439 |
| | | SW846 7470A | 1198670 | 05/13/2024 10:30 | JSE | SW846 7470A | 1201408 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1205542 |
| | | N/A | N/A | N/A | | SW846 8260B | 1203361 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1197927 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1198310 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1198316 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201010 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1197914 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202430 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1199409 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1197940 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1198625 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |
| 3358730002 | FFMP036W | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1197733 | 05/09/2024 04:12 | ANN | SW846 6020A | 1206283 |
| | | SW846 3015A | 1197724 | 05/09/2024 02:35 | ANN | SW846 6020A | 1202946 |
| | | SW846 7470A | 1202340 | 05/14/2024 10:50 | JSE | SW846 7470A | 1202439 |
| | | SW846 7470A | 1198670 | 05/13/2024 10:30 | JSE | SW846 7470A | 1201408 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1205542 |
| | | N/A | N/A | N/A | | SW846 8260B | 1203361 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1197927 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1198310 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1198316 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201010 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1197914 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202430 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1199409 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1197940 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1198625 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |
| 3358730003 | FFMP038W | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1197733 | 05/09/2024 04:12 | ANN | SW846 6020A | 1206283 |
| | | SW846 3015A | 1197724 | 05/09/2024 02:35 | ANN | SW846 6020A | 1202946 |
| | | SW846 7470A | 1202340 | 05/14/2024 10:50 | JSE | SW846 7470A | 1202439 |
| | | SW846 7470A | 1198670 | 05/13/2024 10:30 | JSE | SW846 7470A | 1201408 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1205542 |
| | | N/A | N/A | N/A | | SW846 8260B | 1203361 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1197927 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1198310 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1198316 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201209 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1197914 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202430 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1199409 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1197940 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1198625 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|---|---|---|---|---|---|---|---|
| 3358730004 | FFMP039W | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1197733 | 05/09/2024 04:12 | ANN | SW846 6020A | 1206283 |
| | | SW846 3015A | 1197724 | 05/09/2024 02:35 | ANN | SW846 6020A | 1202946 |
| | | SW846 7470A | 1202340 | 05/14/2024 10:50 | JSE | SW846 7470A | 1202439 |
| | | SW846 7470A | 1198670 | 05/13/2024 10:30 | JSE | SW846 7470A | 1201408 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1205542 |
| | | N/A | N/A | N/A | | SW846 8260B | 1203361 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1197927 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1202808 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1198310 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1198316 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201209 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1197914 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202430 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1199409 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1197940 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1198625 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |
| 3358730005 | FFMP002W | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1197733 | 05/09/2024 04:12 | ANN | SW846 6020A | 1206283 |
| | | SW846 3015A | 1197724 | 05/09/2024 02:35 | ANN | SW846 6020A | 1202946 |
| | | SW846 7470A | 1202340 | 05/14/2024 10:50 | JSE | SW846 7470A | 1202439 |
| | | SW846 7470A | 1198670 | 05/13/2024 10:30 | JSE | SW846 7470A | 1201408 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1205542 |
| | | N/A | N/A | N/A | | SW846 8260B | 1203361 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1197927 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1198310 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1198316 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201010 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1197914 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1205518 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1199409 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1197940 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1198625 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |
| 3358730006 | FFMP031W | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1197733 | 05/09/2024 04:12 | ANN | SW846 6020A | 1206283 |
| | | SW846 3015A | 1197724 | 05/09/2024 02:35 | ANN | SW846 6020A | 1202946 |
| | | SW846 7470A | 1202340 | 05/14/2024 10:50 | JSE | SW846 7470A | 1202439 |
| | | SW846 7470A | 1198670 | 05/13/2024 10:30 | JSE | SW846 7470A | 1201408 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1205542 |
| | | N/A | N/A | N/A | | SW846 8260B | 1203361 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1197927 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1198310 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1198316 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1205502 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1197914 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202430 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1199409 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1197940 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1198625 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |

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.

3358730
Logged By: SLS
PM: SJB

130 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/#:** Frey Farm Annual
**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 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Container Size | 40ml | 125ml | 40ml | 1L | 500ml | | | 250ml | 125ml | 125ml |
| Preservative | HCL | H2SO4 | HCL | 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 | VOC (form 19A) +LS | pH, CL, SpC, F, SO4, NO3, Tb, TDS | Alkalinity, HCO3 | FM | Sample Debth for AUX Data | NH3-N, COD | Dis Metals Fe,Mn,Na,Ba,Cr,Cu, Pb,Mg,k,Zn,As,Cd,Se,Ag,Hg,Ca | Metals: Fe,Mn,Na,Ba,Cr,Cu, Pb,Mg,K,Zn,As,Cd,Se,Ag,Hg,Ca |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Enter Number of Containers Per Sample or Field Results Below. | | | | | | | | | |
| 1 | FFMP035W | 5/8/24 | 1024 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | 2 | 2 |
| 2 | FFMP036W | 5/8/24 | 1014 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | 2 | 2 |
| 3 | FFMP038W | 5/8/24 | 1224 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | 2 | 2 |
| 4 | FFMP039W | 5/8/24 | 1247 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | 2 | 2 |
| 5 | FFMP002W | 5/8/24 | 1429 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | 2 | 2 |
| 6 | FFMP031W | 5/8/24 | 1456 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | 2 | 2 |
| 7 | | | | | | | | | | | | | | | DLB | |
| 8 | | | | | | | | | | | | | | | 5/8/24 | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |

(Lab Use Only)
Temp Taken By: MP Therm ID: 570 WO Temp (°C) 1°C
Receipt Info completed by:_____ WV Containers 0-6°C Y N NA
Cooler Custody Seals Intact Y N NA
Sa Temp By: MP | WO Temp (°C) 1° | Therm ID 570
Re
Cc
Cc
Sa
Ad
VC
N
Co
Sa
Re
SD
PW
PW

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

Deviations? NO YES
If YES, list below:

Client contact:
Date/Tech:

Rad Screen (uCi)_____
Source? Y N
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: DG Shade ID:

Comments:

| Date: | Time | | Relinquished By / Company Name | | Received By / Company Name |
|---|---|---|---|---|---|
| 5-8-24 | 1625 | 1 | DG Shade 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

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 FFMP-FORM 19A
Workorder 3358998
Report ID 323843 on 5/22/2024

## Certificate of Analysis

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

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

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

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


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

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

*Susan Scherer*

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

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

## Sample Summary

| Lab ID | Sample ID | Matrix | Date Collected | Date Received | Collector | Collection Company |
|---|---|---|---|---|---|---|
| 3358998001 | FFMP02SW | Ground Water | 05/09/2024 10:08 | 05/09/2024 16:05 | BGS | Analytical Laboratory Service |
| 3358998002 | FFMP02DW | Ground Water | 05/09/2024 12:36 | 05/09/2024 16:05 | BGS | Analytical Laboratory Service |
| 3358998003 | FFMP017W | Ground Water | 05/09/2024 11:52 | 05/09/2024 16:05 | BGS | Analytical Laboratory Service |
| 3358998004 | FFMP032W | Ground Water | 05/09/2024 14:43 | 05/09/2024 16:05 | BGS | Analytical Laboratory Service |
| 3358998005 | FIELD BLANK | Water | 05/09/2024 14:00 | 05/09/2024 16:05 | BGS | Analytical Laboratory Service |
| 3358998006 | TRIP BLANK | Water | 05/09/2024 16:05 | 05/09/2024 16:05 | 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 type LLCCV for method SW846 6020A was outside the control limits for the analyte Na. The % recovery was reported as 147.2 and the control limits were 70 to 130. The sample concentration was above the concentration of the CCV. |
| 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 Chloride. The % Recovery was reported as 44.9 and the control limits were 80 to 120. |
| 6 | The QC type LLCCV for method SW846 6020A was outside the control limits for the analyte Mg. The % RSD was reported as 23.5 and the control limits were 0 to 20. |
| 7 | The QC type LLCCV for method SW846 6020A was outside the control limits for the analyte Se. The % RSD was reported as 29.2 and the control limits were 0 to 20. |
| 8 | The QC type LLCCV for method SW846 6020A was outside the control limits for the analyte Na. The % recovery was reported as 147.2 and the control limits were 70 to 130. The sample concentration was ND. |

# Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP02SW | Collected | 05/09/2024 10:08 |
| Lab Sample ID | 3358998001 | Lab Receipt | 05/09/2024 16:05 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 14.69 | Feet | | Field | # |
| Dissolved Oxygen | 4.52 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 509.90 | Feet | | Field | # |
| Flow Rate | 1.00 | gal/min | | Field | # |
| Ground Water Elevation | 495.21 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | 200 | mV | | Field | # |
| pH, Field (SM4500B) | 6.68 | pH_Units | | Field | # |
| Sample Depth | 18.00 | Feet | | Field | # |
| Specific Conductance, Field | 789 | umhos/cm | 1 | Field | # |
| Temperature | 15.33 | Deg. C | | Field | # |
| Total Well Depth | 22.70 | Feet | | Field | # |
| Volume in Water Column | 5.21 | Gallons | | Field | # |
| Water Level After Purge | 17.85 | Feet | | Field | # |
| Well Volumes Purged | 3.46 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.085 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.096 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 23.3 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 25.8 | mg/L | 0.11 | SW846 6020A | # |
| Chromium, Total | 0.0094 | mg/L | 0.0022 | SW846 6020A | # |
| Iron, Total | 0.39 | mg/L | 0.056 | SW846 6020A | # |
| Magnesium, Dissolved | 8.6 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 8.9 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.018 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.029 | mg/L | 0.0056 | SW846 6020A | # |
| Nickel, Total | 0.0069 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 4.6 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 4.4 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 58.7 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 67.1 | mg/L | 0.11 | SW846 6020A | # |
| Zinc, Dissolved | 0.0095 | mg/L | 0.0056 | SW846 6020A | # |
| Zinc, Total | 0.013 | mg/L | 0.0056 | SW846 6020A | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 27 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 27 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 119 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 9.9 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 7.06 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 607 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 46.8 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 344 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 1.9 | mg/L | 0.50 | SM5310B-14 | # |
| Turbidity | 21 | NTU | 0.30 | SM2130B-2011 | # |

## Detected Results Summary

Sample - FFMP02SW (cont.)

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|

# Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP02DW | Collected | 05/09/2024 12:36 |
| Lab Sample ID | 3358998002 | Lab Receipt | 05/09/2024 16:05 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 26.18 | Feet | | Field | # |
| Dissolved Oxygen | 0.02 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 509.60 | Feet | | Field | # |
| Flow Rate | 1.61 | gal/min | | Field | # |
| Ground Water Elevation | 483.42 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | -21 | mV | | Field | # |
| pH, Field (SM4500B) | 7.14 | pH_Units | | Field | # |
| Sample Depth | 120.00 | Feet | | Field | # |
| Specific Conductance, Field | 2212 | umhos/cm | 1 | Field | # |
| Temperature | 16.43 | Deg. C | | Field | # |
| Total Well Depth | 153.00 | Feet | | Field | # |
| Turbidity, Field | 27 | NTU | 1 | Field | # |
| Volume in Water Column | 186.43 | Gallons | | Field | # |
| Water Level After Purge | 76.45 | Feet | | Field | # |
| Well Volumes Purged | 1.38 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.18 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.19 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 119 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 118 | mg/L | 0.11 | SW846 6020A | # |
| Iron, Dissolved | 0.16 | mg/L | 0.056 | SW846 6020A | # |
| Iron, Total | 1.2 | mg/L | 0.056 | SW846 6020A | # |
| Magnesium, Dissolved | 20.8 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 20.5 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.40 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.38 | mg/L | 0.0056 | SW846 6020A | # |
| Nickel, Total | 0.0071 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 1.7 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 1.7 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 143 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 142 | mg/L | 0.11 | SW846 6020A | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 126 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 126 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 402 | mg/L | 5.0 | EPA 300.0 | # |
| Nitrate-N | 7.6 | mg/L | 2.5 | EPA 300.0 | # |
| pH | 8.09 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 1620 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 45.3 | mg/L | 5.0 | EPA 300.0 | # |
| Total Dissolved Solids | 1020 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 0.93 | mg/L | 0.50 | SM5310B-14 | # |
| Turbidity | 14 | NTU | 0.30 | SM2130B-2011 | # |

# Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP017W | Collected | 05/09/2024 11:52 |
| Lab Sample ID | 3358998003 | Lab Receipt | 05/09/2024 16:05 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 39.59 | Feet | | Field | # |
| Dissolved Oxygen | 0.38 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 480.70 | Feet | | Field | # |
| Flow Rate | 2.06 | gal/min | | Field | # |
| Ground Water Elevation | 441.11 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | 185 | mV | | Field | # |
| pH, Field (SM4500B) | 6.19 | pH_Units | | Field | # |
| Sample Depth | 135.00 | Feet | | Field | # |
| Specific Conductance, Field | 2737 | umhos/cm | 1 | Field | # |
| Temperature | 13.29 | Deg. C | | Field | # |
| Total Well Depth | 150.50 | Feet | | Field | # |
| Turbidity, Field | 2 | NTU | 1 | Field | # |
| Volume in Water Column | 163.04 | Gallons | | Field | # |
| Water Level After Purge | 45.35 | Feet | | Field | # |
| Well Volumes Purged | 1.01 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.16 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.16 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 126 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 126 | mg/L | 0.11 | SW846 6020A | # |
| Chromium, Total | 0.0044 | mg/L | 0.0022 | SW846 6020A | # |
| Cobalt, Total | 0.014 | mg/L | 0.0056 | SW846 6020A | # |
| Iron, Total | 0.091 | mg/L | 0.056 | SW846 6020A | # |
| Magnesium, Dissolved | 48.8 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 47.5 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 1.5 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 1.5 | mg/L | 0.0056 | SW846 6020A | # |
| Nickel, Total | 0.0070 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 14.2 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 14.4 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 149 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 150 | mg/L | 0.11 | SW846 6020A | # |
| Zinc, Dissolved | 0.012 | mg/L | 0.0056 | SW846 6020A | # |
| Zinc, Total | 0.010 | mg/L | 0.0056 | SW846 6020A | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 95 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 95 | mg/L | 5 | SM2320B-2011 | # |
| Ammonia-N, Low Level | 0.11 | mg/L | 0.10 | SM 4500-NH3G | # |
| Chemical Oxygen Demand (COD) | 15 | mg/L | 15 | EPA 410.4 | # |
| Chloride | 499 | mg/L | 5.0 | EPA 300.0 | # |
| Nitrate-N | 4.6 | mg/L | 2.5 | EPA 300.0 | # |
| pH | 7.55 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 1990 | umhos/cm | 5 | SM2510B-2011 | # |

## Detected Results Summary

Sample - FFMP017W (cont.)

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **WET CHEMISTRY (cont.)** | | | | | |
| Sulfate | 124 | mg/L | 5.0 | EPA 300.0 | # |
| Total Dissolved Solids | 1280 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 4.1 | mg/L | 0.50 | SM5310B-14 | # |
| Turbidity | 2.6 | NTU | 0.30 | SM2130B-2011 | # |

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP032W | Collected | 05/09/2024 14:43 |
| Lab Sample ID | 3358998004 | Lab Receipt | 05/09/2024 16:05 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 46.55 | Feet | | Field | # |
| Dissolved Oxygen | 0.21 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 594.09 | Feet | | Field | # |
| Flow Rate | 0.44 | gal/min | | Field | # |
| Ground Water Elevation | 547.54 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | -118 | mV | | Field | # |
| pH, Field (SM4500B) | 6.93 | pH_Units | | Field | # |
| Sample Depth | 62.00 | Feet | | Field | # |
| Specific Conductance, Field | 322 | umhos/cm | 1 | Field | # |
| Temperature | 16.82 | Deg. C | | Field | # |
| Total Well Depth | 77.60 | Feet | | Field | # |
| Turbidity, Field | 28 | NTU | 1 | Field | # |
| Volume in Water Column | 45.64 | Gallons | | Field | # |
| Water Level After Purge | 57.28 | Feet | | Field | # |
| Well Volumes Purged | 0.94 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Calcium, Dissolved | 16.5 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 16.6 | mg/L | 0.11 | SW846 6020A | # |
| Chromium, Total | 0.0040 | mg/L | 0.0022 | SW846 6020A | # |
| Copper, Total | 0.011 | mg/L | 0.0056 | SW846 6020A | # |
| Iron, Dissolved | 3.5 | mg/L | 0.056 | SW846 6020A | # |
| Iron, Total | 12.2 | mg/L | 0.056 | SW846 6020A | # |
| Magnesium, Dissolved | 6.3 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 6.4 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.53 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.60 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 1.6 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 1.6 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 13.3 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 13.6 | mg/L | 0.11 | SW846 6020A | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 72 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 72 | mg/L | 5 | SM2320B-2011 | # |
| Ammonia-N, Low Level | 0.81 | mg/L | 0.10 | SM 4500-NH3G | # |
| Chloride | 27.3 | mg/L | 2.0 | EPA 300.0 | # |
| pH | 8.06 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 221 | umhos/cm | 5 | SM2510B-2011 | # |
| Total Dissolved Solids | 118 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 0.70 | mg/L | 0.50 | SM5310B-14 | # |
| Turbidity | 70 | NTU | 0.30 | SM2130B-2011 | # |

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FIELD BLANK | Collected | 05/09/2024 14:00 |
| Lab Sample ID | 3358998005 | Lab Receipt | 05/09/2024 16:05 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **VOLATILE ORGANICS** | | | | | |
| Acetone | 119 | ug/L | 10.0 | SW846 8260B | # |
| Chloroform | 2.4 | ug/L | 1.0 | SW846 8260B | # |
| **WET CHEMISTRY** | | | | | |
| pH | 5.11 | pH_Units | | S4500HB-11 | # |
| Total Organic Carbon (TOC) | 1.2 | mg/L | 0.50 | SM5310B-14 | # |

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | TRIP BLANK | Collected | 05/09/2024 16:05 |
| Lab Sample ID | 3358998006 | Lab Receipt | 05/09/2024 16:05 |

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

# Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP02SW | Collected | 05/09/2024 10:08 |
| Lab Sample ID | 3358998001 | Lab Receipt | 05/09/2024 16:05 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 14.69 | | Feet | | Field | 1 | 05/09/2024 10:08 | BGS | H |
| Dissolved Oxygen | 4.52 | | mg/L | 0.01 | Field | 1 | 05/09/2024 10:08 | BGS | H |
| Elev Top MW Casing above MSL | 509.90 | | Feet | | Field | 1 | 05/09/2024 10:08 | BGS | H |
| Flow Rate | 1.00 | | gal/min | | Field | 1 | 05/09/2024 10:08 | BGS | H |
| Ground Water Elevation | 495.21 | | ft/MSL | | Field | 1 | 05/09/2024 10:08 | BGS | H |
| Oxidation-Reduction Potential | 200 | | mV | | Field | 1 | 05/09/2024 10:08 | BGS | H |
| pH, Field (SM4500B) | 6.68 | | pH_Units | | Field | 1 | 05/09/2024 10:08 | BGS | H |
| Sample Depth | 18.00 | | Feet | | Field | 1 | 05/09/2024 10:08 | BGS | H |
| Specific Conductance, Field | 789 | | umhos/cm | 1 | Field | 1 | 05/09/2024 10:08 | BGS | H |
| Temperature | 15.33 | | Deg. C | | Field | 1 | 05/09/2024 10:08 | BGS | H |
| Total Well Depth | 22.70 | | Feet | | Field | 1 | 05/09/2024 10:08 | BGS | H |
| Turbidity, Field | ND | ND | NTU | 1 | Field | 1 | 05/09/2024 10:08 | BGS | H |
| Volume in Water Column | 5.21 | | Gallons | | Field | 1 | 05/09/2024 10:08 | BGS | H |
| Water Level After Purge | 17.85 | | Feet | | Field | 1 | 05/09/2024 10:08 | BGS | H |
| Well Volumes Purged | 3.46 | | Vol | | Field | 1 | 05/09/2024 10:08 | 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 | 05/17/2024 02:18 | ILY | 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 | 05/17/2024 10:26 | MO | F1 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/16/2024 14:00 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Barium, Dissolved | 0.085 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:00 | MO | D1 |
| Barium, Total | 0.096 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/16/2024 14:00 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Calcium, Dissolved | 23.3 | | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:00 | MO | D1 |
| Calcium, Total | 25.8 | | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/16/2024 14:00 | MO | D1 |
| Chromium, Total | 0.0094 | | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Cobalt, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:00 | MO | D1 |
| Copper, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Iron, Dissolved | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/16/2024 14:00 | MO | D1 |
| Iron, Total | 0.39 | | mg/L | 0.056 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/16/2024 14:00 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Magnesium, Dissolved | 8.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:00 | MO | D1 |
| Magnesium, Total | 8.9 | | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Manganese, Dissolved | 0.018 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:00 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP02SW | Collected | 05/09/2024 10:08 |
| Lab Sample ID | 3358998001 | Lab Receipt | 05/09/2024 16:05 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.029 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/14/2024 14:40 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/14/2024 15:11 | JSE | F |
| Nickel, Total | 0.0069 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Potassium, Dissolved | 4.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:00 | MO | D1 |
| Potassium, Total | 4.4 | | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Selenium, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:00 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/16/2024 14:00 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Sodium, Dissolved | 58.7 | 3 | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:00 | MO | D1 |
| Sodium, Total | 67.1 | | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Vanadium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |
| Zinc, Dissolved | 0.0095 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:00 | MO | D1 |
| Zinc, Total | 0.013 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:26 | MO | F1 |

## 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 | 05/17/2024 02:18 | PDK | L |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Bromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP02SW | Collected | 05/09/2024 10:08 |
| Lab Sample ID | 3358998001 | Lab Receipt | 05/09/2024 16:05 |

## 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 | 05/17/2024 02:18 | PDK | L |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Chloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Iodomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Trichlorofluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:18 | PDK | L |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 92.7% | 62 – 133 | 05/17/2024 02:18 | |
| 4-Bromofluorobenzene | 460-00-4 | 98.8% | 79 – 114 | 05/17/2024 02:18 | |
| Dibromofluoromethane | 1868-53-7 | 94.9% | 78 – 116 | 05/17/2024 02:18 | |
| Toluene-d8 | 2037-26-5 | 94.2% | 76 – 127 | 05/17/2024 02:18 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 27 | | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 04:32 | KMV | A |
| Alkalinity, Total | 27 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 04:32 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.50 | SM 4500-NH3G | 5 | 05/14/2024 11:01 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/10/2024 11:22 | KMS | C |
| Chloride | 119 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/10/2024 12:06 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/10/2024 12:06 | J1W | A |
| Nitrate-N | 9.9 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/10/2024 12:06 | J1W | A |
| pH | 7.06 | 2 | pH_Units | | S4500HB-11 | 1 | 05/15/2024 04:32 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 12:03 | AKH | K |
| Specific Conductance | 607 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/10/2024 16:30 | BLP | A |
| Sulfate | 46.8 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/10/2024 12:06 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP02SW | Collected | 05/09/2024 10:08 |
| Lab Sample ID | 3358998001 | Lab Receipt | 05/09/2024 16:05 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 344 | | mg/L | 25 | SM2540C-15 | 1 | 05/10/2024 14:45 | RAG | A |
| Total Organic Carbon (TOC) | 1.9 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/10/2024 18:03 | PAG | I |
| Turbidity | 21 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/10/2024 14:36 | NPF | A |

# Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP02DW | Collected | 05/09/2024 12:36 |
| Lab Sample ID | 3358998002 | Lab Receipt | 05/09/2024 16:05 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 26.18 | | Feet | | Field | 1 | 05/09/2024 12:36 | BGS | H |
| Dissolved Oxygen | 0.02 | | mg/L | 0.01 | Field | 1 | 05/09/2024 12:36 | BGS | H |
| Elev Top MW Casing above MSL | 509.60 | | Feet | | Field | 1 | 05/09/2024 12:36 | BGS | H |
| Flow Rate | 1.61 | | gal/min | | Field | 1 | 05/09/2024 12:36 | BGS | H |
| Ground Water Elevation | 483.42 | | ft/MSL | | Field | 1 | 05/09/2024 12:36 | BGS | H |
| Oxidation-Reduction Potential | -21 | | mV | | Field | 1 | 05/09/2024 12:36 | BGS | H |
| pH, Field (SM4500B) | 7.14 | | pH_Units | | Field | 1 | 05/09/2024 12:36 | BGS | H |
| Sample Depth | 120.00 | | Feet | | Field | 1 | 05/09/2024 12:36 | BGS | H |
| Specific Conductance, Field | 2212 | | umhos/cm | 1 | Field | 1 | 05/09/2024 12:36 | BGS | H |
| Temperature | 16.43 | | Deg. C | | Field | 1 | 05/09/2024 12:36 | BGS | H |
| Total Well Depth | 153.00 | | Feet | | Field | 1 | 05/09/2024 12:36 | BGS | H |
| Turbidity, Field | 27 | | NTU | 1 | Field | 1 | 05/09/2024 12:36 | BGS | H |
| Volume in Water Column | 186.43 | | Gallons | | Field | 1 | 05/09/2024 12:36 | BGS | H |
| Water Level After Purge | 76.45 | | Feet | | Field | 1 | 05/09/2024 12:36 | BGS | H |
| Well Volumes Purged | 1.38 | | Vol | | Field | 1 | 05/09/2024 12:36 | 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 | 05/17/2024 02:38 | ILY | 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 | 05/17/2024 10:28 | MO | F1 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/16/2024 14:02 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Barium, Dissolved | 0.18 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:02 | MO | D1 |
| Barium, Total | 0.19 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/16/2024 14:02 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Calcium, Dissolved | 119 | 4 | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:02 | MO | D1 |
| Calcium, Total | 118 | | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/16/2024 14:02 | MO | D1 |
| Chromium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Cobalt, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:02 | MO | D1 |
| Copper, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Iron, Dissolved | 0.16 | | mg/L | 0.056 | SW846 6020A | 1 | 05/16/2024 14:02 | MO | D1 |
| Iron, Total | 1.2 | | mg/L | 0.056 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/16/2024 14:02 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Magnesium, Dissolved | 20.8 | 4 | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:02 | MO | D1 |
| Magnesium, Total | 20.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Manganese, Dissolved | 0.40 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:02 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP02DW | Collected | 05/09/2024 12:36 |
| Lab Sample ID | 3358998002 | Lab Receipt | 05/09/2024 16:05 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.38 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/14/2024 14:42 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/14/2024 15:18 | JSE | F |
| Nickel, Total | 0.0071 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Potassium, Dissolved | 1.7 | | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:02 | MO | D1 |
| Potassium, Total | 1.7 | | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Selenium, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:02 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/16/2024 14:02 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Sodium, Dissolved | 143 | 3,4 | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:02 | MO | D1 |
| Sodium, Total | 142 | | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Vanadium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |
| Zinc, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:02 | MO | D1 |
| Zinc, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:28 | MO | F1 |

## 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 | 05/17/2024 02:38 | PDK | L |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Bromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP02DW | Collected | 05/09/2024 12:36 |
| Lab Sample ID | 3358998002 | Lab Receipt | 05/09/2024 16:05 |

## 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 | 05/17/2024 02:38 | PDK | L |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Chloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Iodomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Trichlorofluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:38 | PDK | L |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 96.7% | 62 – 133 | 05/17/2024 02:38 | |
| 4-Bromofluorobenzene | 460-00-4 | 94.5% | 79 – 114 | 05/17/2024 02:38 | |
| Dibromofluoromethane | 1868-53-7 | 96.5% | 78 – 116 | 05/17/2024 02:38 | |
| Toluene-d8 | 2037-26-5 | 96.1% | 76 – 127 | 05/17/2024 02:38 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 126 | | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 04:43 | KMV | A |
| Alkalinity, Total | 126 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 04:43 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 11:07 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/10/2024 11:22 | KMS | C |
| Chloride | 402 | | mg/L | 5.0 | EPA 300.0 | 5 | 05/10/2024 12:17 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.50 | EPA 300.0 | 5 | 05/10/2024 12:17 | J1W | A |
| Nitrate-N | 7.6 | | mg/L | 2.5 | EPA 300.0 | 5 | 05/10/2024 12:17 | J1W | A |
| pH | 8.09 | 2 | pH_Units | | S4500HB-11 | 1 | 05/15/2024 04:43 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 11:40 | AKH | K |
| Specific Conductance | 1620 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/10/2024 16:30 | BLP | A |
| Sulfate | 45.3 | | mg/L | 5.0 | EPA 300.0 | 5 | 05/10/2024 12:17 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP02DW | Collected | 05/09/2024 12:36 |
| Lab Sample ID | 3358998002 | Lab Receipt | 05/09/2024 16:05 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1020 | | mg/L | 25 | SM2540C-15 | 1 | 05/10/2024 14:45 | RAG | A |
| Total Organic Carbon (TOC) | 0.93 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/10/2024 18:03 | PAG | I |
| Turbidity | 14 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/10/2024 14:36 | NPF | A |

# Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP017W | Collected | 05/09/2024 11:52 |
| Lab Sample ID | 3358998003 | Lab Receipt | 05/09/2024 16:05 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 39.59 | | Feet | | Field | 1 | 05/09/2024 11:52 | BGS | H |
| Dissolved Oxygen | 0.38 | | mg/L | 0.01 | Field | 1 | 05/09/2024 11:52 | BGS | H |
| Elev Top MW Casing above MSL | 480.70 | | Feet | | Field | 1 | 05/09/2024 11:52 | BGS | H |
| Flow Rate | 2.06 | | gal/min | | Field | 1 | 05/09/2024 11:52 | BGS | H |
| Ground Water Elevation | 441.11 | | ft/MSL | | Field | 1 | 05/09/2024 11:52 | BGS | H |
| Oxidation-Reduction Potential | 185 | | mV | | Field | 1 | 05/09/2024 11:52 | BGS | H |
| pH, Field (SM4500B) | 6.19 | | pH_Units | | Field | 1 | 05/09/2024 11:52 | BGS | H |
| Sample Depth | 135.00 | | Feet | | Field | 1 | 05/09/2024 11:52 | BGS | H |
| Specific Conductance, Field | 2737 | | umhos/cm | 1 | Field | 1 | 05/09/2024 11:52 | BGS | H |
| Temperature | 13.29 | | Deg. C | | Field | 1 | 05/09/2024 11:52 | BGS | H |
| Total Well Depth | 150.50 | | Feet | | Field | 1 | 05/09/2024 11:52 | BGS | H |
| Turbidity, Field | 2 | | NTU | 1 | Field | 1 | 05/09/2024 11:52 | BGS | H |
| Volume in Water Column | 163.04 | | Gallons | | Field | 1 | 05/09/2024 11:52 | BGS | H |
| Water Level After Purge | 45.35 | | Feet | | Field | 1 | 05/09/2024 11:52 | BGS | H |
| Well Volumes Purged | 1.01 | | Vol | | Field | 1 | 05/09/2024 11:52 | 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 | 05/17/2024 02:58 | ILY | 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 | 05/17/2024 10:50 | MO | F1 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/16/2024 14:08 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Barium, Dissolved | 0.16 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:08 | MO | D1 |
| Barium, Total | 0.16 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/16/2024 14:08 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Calcium, Dissolved | 126 | | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:08 | MO | D1 |
| Calcium, Total | 126 | 4 | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/16/2024 14:08 | MO | D1 |
| Chromium, Total | 0.0044 | | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Cobalt, Total | 0.014 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:08 | MO | D1 |
| Copper, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Iron, Dissolved | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/16/2024 14:08 | MO | D1 |
| Iron, Total | 0.091 | | mg/L | 0.056 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/16/2024 14:08 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Magnesium, Dissolved | 48.8 | | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:08 | MO | D1 |
| Magnesium, Total | 47.5 | 4,6 | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Manganese, Dissolved | 1.5 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:08 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP017W | Collected | 05/09/2024 11:52 |
| Lab Sample ID | 3358998003 | Lab Receipt | 05/09/2024 16:05 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 1.5 | 4 | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/14/2024 14:43 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/14/2024 15:19 | JSE | F |
| Nickel, Total | 0.0070 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Potassium, Dissolved | 14.2 | | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:08 | MO | D1 |
| Potassium, Total | 14.4 | | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Selenium, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:08 | MO | D1 |
| Selenium, Total | ND | ND,7 | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/16/2024 14:08 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Sodium, Dissolved | 149 | 3 | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:08 | MO | D1 |
| Sodium, Total | 150 | 4 | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Vanadium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |
| Zinc, Dissolved | 0.012 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:08 | MO | D1 |
| Zinc, Total | 0.010 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:50 | MO | F1 |

## 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 | 05/17/2024 02:58 | PDK | L |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Bromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP017W | Collected | 05/09/2024 11:52 |
| Lab Sample ID | 3358998003 | Lab Receipt | 05/09/2024 16:05 |

## 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 | 05/17/2024 02:58 | PDK | L |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Chloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Iodomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Trichlorofluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 02:58 | PDK | L |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 93% | 62 – 133 | 05/17/2024 02:58 | |
| 4-Bromofluorobenzene | 460-00-4 | 99.9% | 79 – 114 | 05/17/2024 02:58 | |
| Dibromofluoromethane | 1868-53-7 | 93.4% | 78 – 116 | 05/17/2024 02:58 | |
| Toluene-d8 | 2037-26-5 | 97.9% | 76 – 127 | 05/17/2024 02:58 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 95 | | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 04:54 | KMV | A |
| Alkalinity, Total | 95 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 04:54 | KMV | A |
| Ammonia-N, Low Level | 0.11 | | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 22:48 | NML | C |
| Chemical Oxygen Demand (COD) | 15 | | mg/L | 15 | EPA 410.4 | 1 | 05/10/2024 11:22 | KMS | C |
| Chloride | 499 | 5 | mg/L | 5.0 | EPA 300.0 | 5 | 05/10/2024 12:29 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.50 | EPA 300.0 | 5 | 05/10/2024 12:29 | J1W | A |
| Nitrate-N | 4.6 | | mg/L | 2.5 | EPA 300.0 | 5 | 05/10/2024 12:29 | J1W | A |
| pH | 7.55 | 2 | pH_Units | | S4500HB-11 | 1 | 05/15/2024 04:54 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 12:10 | AKH | K |
| Specific Conductance | 1990 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/10/2024 16:30 | BLP | A |
| Sulfate | 124 | | mg/L | 5.0 | EPA 300.0 | 5 | 05/10/2024 12:29 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP017W | Collected | 05/09/2024 11:52 |
| Lab Sample ID | 3358998003 | Lab Receipt | 05/09/2024 16:05 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1280 | | mg/L | 25 | SM2540C-15 | 1 | 05/10/2024 14:45 | RAG | A |
| Total Organic Carbon (TOC) | 4.1 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/10/2024 18:03 | PAG | I |
| Turbidity | 2.6 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/10/2024 14:36 | NPF | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP032W | Collected | 05/09/2024 14:43 |
| Lab Sample ID | 3358998004 | Lab Receipt | 05/09/2024 16:05 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 46.55 | | Feet | | Field | 1 | 05/09/2024 14:43 | BGS | H |
| Dissolved Oxygen | 0.21 | | mg/L | 0.01 | Field | 1 | 05/09/2024 14:43 | BGS | H |
| Elev Top MW Casing above MSL | 594.09 | | Feet | | Field | 1 | 05/09/2024 14:43 | BGS | H |
| Flow Rate | 0.44 | | gal/min | | Field | 1 | 05/09/2024 14:43 | BGS | H |
| Ground Water Elevation | 547.54 | | ft/MSL | | Field | 1 | 05/09/2024 14:43 | BGS | H |
| Oxidation-Reduction Potential | -118 | | mV | | Field | 1 | 05/09/2024 14:43 | BGS | H |
| pH, Field (SM4500B) | 6.93 | | pH_Units | | Field | 1 | 05/09/2024 14:43 | BGS | H |
| Sample Depth | 62.00 | | Feet | | Field | 1 | 05/09/2024 14:43 | BGS | H |
| Specific Conductance, Field | 322 | | umhos/cm | 1 | Field | 1 | 05/09/2024 14:43 | BGS | H |
| Temperature | 16.82 | | Deg. C | | Field | 1 | 05/09/2024 14:43 | BGS | H |
| Total Well Depth | 77.60 | | Feet | | Field | 1 | 05/09/2024 14:43 | BGS | H |
| Turbidity, Field | 28 | | NTU | 1 | Field | 1 | 05/09/2024 14:43 | BGS | H |
| Volume in Water Column | 45.64 | | Gallons | | Field | 1 | 05/09/2024 14:43 | BGS | H |
| Water Level After Purge | 57.28 | | Feet | | Field | 1 | 05/09/2024 14:43 | BGS | H |
| Well Volumes Purged | 0.94 | | Vol | | Field | 1 | 05/09/2024 14:43 | 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 | 05/17/2024 03:17 | ILY | 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 | 05/17/2024 10:56 | MO | F1 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/16/2024 14:10 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Barium, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:10 | MO | D1 |
| Barium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/16/2024 14:10 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Calcium, Dissolved | 16.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:10 | MO | D1 |
| Calcium, Total | 16.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/16/2024 14:10 | MO | D1 |
| Chromium, Total | 0.0040 | | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Cobalt, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:10 | MO | D1 |
| Copper, Total | 0.011 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Iron, Dissolved | 3.5 | | mg/L | 0.056 | SW846 6020A | 1 | 05/16/2024 14:10 | MO | D1 |
| Iron, Total | 12.2 | | mg/L | 0.056 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/16/2024 14:10 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Magnesium, Dissolved | 6.3 | | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:10 | MO | D1 |
| Magnesium, Total | 6.4 | 6 | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Manganese, Dissolved | 0.53 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:10 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP032W | Collected | 05/09/2024 14:43 |
| Lab Sample ID | 3358998004 | Lab Receipt | 05/09/2024 16:05 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.60 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/14/2024 14:44 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/14/2024 15:21 | JSE | F |
| Nickel, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Potassium, Dissolved | 1.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:10 | MO | D1 |
| Potassium, Total | 1.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Selenium, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:10 | MO | D1 |
| Selenium, Total | ND | ND,7 | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/16/2024 14:10 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Sodium, Dissolved | 13.3 | 3 | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:10 | MO | D1 |
| Sodium, Total | 13.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Vanadium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |
| Zinc, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:10 | MO | D1 |
| Zinc, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:56 | MO | F1 |

## 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 | 05/17/2024 03:17 | PDK | L |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Bromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP032W | Collected | 05/09/2024 14:43 |
| Lab Sample ID | 3358998004 | Lab Receipt | 05/09/2024 16:05 |

## 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 | 05/17/2024 03:17 | PDK | L |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Chloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Iodomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Trichlorofluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 03:17 | PDK | L |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 94.9% | 62 – 133 | 05/17/2024 03:17 | |
| 4-Bromofluorobenzene | 460-00-4 | 95.2% | 79 – 114 | 05/17/2024 03:17 | |
| Dibromofluoromethane | 1868-53-7 | 96.1% | 78 – 116 | 05/17/2024 03:17 | |
| Toluene-d8 | 2037-26-5 | 96.6% | 76 – 127 | 05/17/2024 03:17 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 72 | | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 05:05 | KMV | A |
| Alkalinity, Total | 72 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 05:05 | KMV | A |
| Ammonia-N, Low Level | 0.81 | | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 12:04 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/10/2024 11:22 | KMS | C |
| Chloride | 27.3 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/10/2024 13:14 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/10/2024 13:14 | J1W | A |
| Nitrate-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 05/10/2024 13:14 | J1W | A |
| pH | 8.06 | 2 | pH_Units | | S4500HB-11 | 1 | 05/15/2024 05:05 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 12:07 | AKH | K |
| Specific Conductance | 221 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/10/2024 16:30 | BLP | A |
| Sulfate | ND | ND | mg/L | 2.0 | EPA 300.0 | 2 | 05/10/2024 13:14 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP032W | Collected | 05/09/2024 14:43 |
| Lab Sample ID | 3358998004 | Lab Receipt | 05/09/2024 16:05 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 118 | | mg/L | 25 | SM2540C-15 | 1 | 05/10/2024 14:45 | RAG | A |
| Total Organic Carbon (TOC) | 0.70 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/10/2024 18:03 | PAG | I |
| Turbidity | 70 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/10/2024 14:36 | NPF | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FIELD BLANK | Collected | 05/09/2024 14:00 |
| Lab Sample ID | 3358998005 | Lab Receipt | 05/09/2024 16:05 |

## METALS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Antimony, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/16/2024 14:12 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Barium, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:12 | MO | D1 |
| Barium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/16/2024 14:12 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Calcium, Dissolved | ND | ND | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:12 | MO | D1 |
| Calcium, Total | ND | ND | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/16/2024 14:12 | MO | D1 |
| Chromium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Cobalt, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:12 | MO | D1 |
| Copper, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Iron, Dissolved | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/16/2024 14:12 | MO | D1 |
| Iron, Total | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/16/2024 14:12 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Magnesium, Dissolved | ND | ND | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:12 | MO | D1 |
| Magnesium, Total | ND | ND,6 | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Manganese, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:12 | MO | D1 |
| Manganese, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/14/2024 14:45 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/14/2024 15:22 | JSE | F |
| Nickel, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Potassium, Dissolved | ND | ND | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:12 | MO | D1 |
| Potassium, Total | ND | ND | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Selenium, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:12 | MO | D1 |
| Selenium, Total | ND | ND,7 | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/16/2024 14:12 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Sodium, Dissolved | ND | ND,8 | mg/L | 0.11 | SW846 6020A | 1 | 05/16/2024 14:12 | MO | D1 |
| Sodium, Total | ND | ND | mg/L | 0.11 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Vanadium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |
| Zinc, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/16/2024 14:12 | MO | D1 |
| Zinc, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/17/2024 10:58 | MO | F1 |

## 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 | 05/17/2024 01:58 | PDK | L |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FIELD BLANK | Collected | 05/09/2024 14:00 |
| Lab Sample ID | 3358998005 | Lab Receipt | 05/09/2024 16:05 |

## VOLATILE ORGANICS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Acetone | 119 | | ug/L | 10.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Bromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Chlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Chloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Chloroform | 2.4 | | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Iodomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Trichlorofluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:58 | PDK | L |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FIELD BLANK | Collected | 05/09/2024 14:00 |
| Lab Sample ID | 3358998005 | Lab Receipt | 05/09/2024 16:05 |

## VOLATILE ORGANICS (cont.)

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

*TICs by Library Search*

| Compound | CAS No | Result | Units | Qualifiers |
|---|---|---|---|---|
| 2-Cyclopenten-1-one, 2-meth | 1120-73-6 | 4.9 | ug/L | J,N |
| 2-Propenal, 2-methyl- | 78-85-3 | 3.6 | ug/L | J,N |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 94.4% | 62 – 133 | 05/17/2024 01:58 | |
| 4-Bromofluorobenzene | 460-00-4 | 95.4% | 79 – 114 | 05/17/2024 01:58 | |
| Dibromofluoromethane | 1868-53-7 | 96.4% | 78 – 116 | 05/17/2024 01:58 | |
| Toluene-d8 | 2037-26-5 | 95.5% | 76 – 127 | 05/17/2024 01:58 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | ND | ND | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 05:47 | KMV | A |
| Alkalinity, Total | ND | ND,1 | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 05:47 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 12:01 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/10/2024 11:22 | KMS | C |
| Chloride | ND | ND | mg/L | 2.0 | EPA 300.0 | 2 | 05/10/2024 13:26 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/10/2024 13:26 | J1W | A |
| Nitrate-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 05/10/2024 13:26 | J1W | A |
| pH | 5.11 | 2 | pH_Units | | S4500HB-11 | 1 | 05/15/2024 05:47 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/21/2024 14:59 | AKH | K |
| Specific Conductance | ND | ND | umhos/cm | 5 | SM2510B-2011 | 1 | 05/10/2024 16:30 | BLP | A |
| Sulfate | ND | ND | mg/L | 2.0 | EPA 300.0 | 2 | 05/10/2024 13:26 | J1W | A |
| Total Dissolved Solids | ND | ND | mg/L | 25 | SM2540C-15 | 1 | 05/10/2024 14:45 | RAG | A |
| Total Organic Carbon (TOC) | 1.2 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/10/2024 18:03 | PAG | I |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 05/10/2024 14:36 | NPF | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | TRIP BLANK | Collected | 05/09/2024 16:05 |
| Lab Sample ID | 3358998006 | Lab Receipt | 05/09/2024 16:05 |

## LIBRARY SEARCH - VOLATILES

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| No TIC's Detected | . | | | | Lib Search VOC | 1 | 05/17/2024 01:38 | ILY | 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 | 05/17/2024 01:38 | PDK | B |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Bromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Chlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Chloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Iodomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | TRIP BLANK | Collected | 05/09/2024 16:05 |
| Lab Sample ID | 3358998006 | Lab Receipt | 05/09/2024 16:05 |

## 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 | 05/17/2024 01:38 | PDK | B |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Trichlorofluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/17/2024 01:38 | PDK | B |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 95.8% | 62 – 133 | 05/17/2024 01:38 | |
| 4-Bromofluorobenzene | 460-00-4 | 102% | 79 – 114 | 05/17/2024 01:38 | |
| Dibromofluoromethane | 1868-53-7 | 95.2% | 78 – 116 | 05/17/2024 01:38 | |
| Toluene-d8 | 2037-26-5 | 98.5% | 76 – 127 | 05/17/2024 01:38 | |

## Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3358998001 | FFMP02SW | 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 | |
| 3358998002 | FFMP02DW | 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 | |
| 3358998003 | FFMP017W | 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 | |

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3358998004 | FFMP032W | 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 | |
| 3358998005 | FIELD BLANK | 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 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 | |
| 3358998006 | 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 |
|---|---|---|---|---|---|---|---|
| 3358998001 | FFMP02SW | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1201914 | 05/14/2024 05:48 | ANN | SW846 6020A | 1205415 |
| | | SW846 3015A | 1200211 | 05/12/2024 22:08 | ANN | SW846 6020A | 1204967 |
| | | SW846 7470A | 1202342 | 05/14/2024 10:50 | JSE | SW846 7470A | 1202440 |
| | | SW846 7470A | 1202340 | 05/14/2024 10:50 | JSE | SW846 7470A | 1202439 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1206368 |
| | | N/A | N/A | N/A | | SW846 8260B | 1205266 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1199207 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1199306 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1202430 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201209 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1199214 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202430 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1199409 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1199319 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1199350 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |
| 3358998002 | FFMP02DW | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1201914 | 05/14/2024 05:48 | ANN | SW846 6020A | 1205415 |
| | | SW846 3015A | 1200211 | 05/12/2024 22:08 | ANN | SW846 6020A | 1204967 |
| | | SW846 7470A | 1202342 | 05/14/2024 10:50 | JSE | SW846 7470A | 1202440 |
| | | SW846 7470A | 1202340 | 05/14/2024 10:50 | JSE | SW846 7470A | 1202439 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1206368 |
| | | N/A | N/A | N/A | | SW846 8260B | 1205266 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1199207 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1199306 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1202430 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201209 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1199214 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202430 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1199409 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1199319 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1199350 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |
| 3358998003 | FFMP017W | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1200211 | 05/12/2024 22:08 | ANN | SW846 6020A | 1204967 |
| | | SW846 3015A | 1201914 | 05/14/2024 05:48 | ANN | SW846 6020A | 1205415 |
| | | SW846 7470A | 1202342 | 05/14/2024 10:50 | JSE | SW846 7470A | 1202440 |
| | | SW846 7470A | 1202340 | 05/14/2024 10:50 | JSE | SW846 7470A | 1202439 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1206368 |
| | | N/A | N/A | N/A | | SW846 8260B | 1205266 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1199207 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1199306 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1202430 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201209 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1199214 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202430 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1199409 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1199319 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1199350 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|---|---|---|---|---|---|---|---|
| 3358998004 | FFMP032W | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1201914 | 05/14/2024 05:48 | ANN | SW846 6020A | 1205415 |
| | | SW846 3015A | 1200211 | 05/12/2024 22:08 | ANN | SW846 6020A | 1204967 |
| | | SW846 7470A | 1202342 | 05/14/2024 10:50 | JSE | SW846 7470A | 1202440 |
| | | SW846 7470A | 1202340 | 05/14/2024 10:50 | JSE | SW846 7470A | 1202439 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1206368 |
| | | N/A | N/A | N/A | | SW846 8260B | 1205266 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1199207 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1199306 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1202430 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201209 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1199214 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202430 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1199409 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1199319 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1199350 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |
| 3358998005 | FIELD BLANK | SW846 3015A | 1201914 | 05/14/2024 05:48 | ANN | SW846 6020A | 1205415 |
| | | SW846 3015A | 1200211 | 05/12/2024 22:08 | ANN | SW846 6020A | 1204967 |
| | | SW846 7470A | 1202342 | 05/14/2024 10:50 | JSE | SW846 7470A | 1202440 |
| | | SW846 7470A | 1202340 | 05/14/2024 10:50 | JSE | SW846 7470A | 1202439 |
| | | N/A | N/A | N/A | | SW846 8260B | 1205266 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1199207 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1199306 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1202430 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201209 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1199214 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202430 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1199409 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1199319 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1199350 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1206502 |
| 3358998006 | TRIP BLANK | N/A | N/A | N/A | | Lib Search VOC | 1206368 |
| | | N/A | N/A | N/A | | SW846 8260B | 1205266 |

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 #: 3358998
Logged By: D1G
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/#:** Frey Farm Annual
**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 | HCL | 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 | VOC (form 19A) +LS + Styrene | pH, Cl, SpC, F, SO4, NO3, Tb, TDS | Alkalinity, HCO3 | FM | Sample Debth for AUX Data | NH3-N, COD | Dis Metals Fe,Mn,Na,Ba,Cr,Cu, Pb,Mg,k,Zn,As,Cd,Se,Ag,Hg,Ca | Metals: Fe,Mn,Na,Ba,Cr,Cu, Pb,Mg,K,Zn,As,Cd,Se,Ag,Hg,Ca |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Enter Number of Containers Per Sample or Field Results Below. | | | | | | | | | |
| 1 | FFMP02SW | 5/9/24 | 1008 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | 1 | 1 |
| 2 | FFMP02DW | 5/9/24 | 1236 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | 1 | 1 |
| 3 | FFMP017W | 5/9/24 | 1152 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | 1 | 1 |
| 4 | FFMP032W | 5/9/24 | 1443 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | 1 | 1 |
| 5 | Field Blank | 5/9/24 | 1400 | | G | GW | 2 | 1 | 2 | 1 | 1 | | | 1 | 1 | 1 |
| 6 | Trip Blank | 5/9/24 | 1605 | | G | GW | | | 2 | | | | | | | |
| 7 | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |

Temp Taken By: Therm ID: WO Temp (°C)
Receipt Info completed by: WV Containers 0-6°C Y N NA
Cooler Custod Temp By: DPB | WO Temp (°C) 2° | Therm ID 571 ? NO YES
Sample Custo ES, list below:
Received on I
Coolers & San
Correct Contai
Sample Label/(
Adequate Sam
VOA only: Trip
NJ ≤ 4 days?
Courier/Tracking #

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

Sample(s) for R (Ci)_____
Reportable SDW Y N
SDWA State of ( Contact:
PWSID #__
PWS Contact:__

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

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

**Sample/COC Remarks**
Sample 1052 DPB 5/9/24 WO3211

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

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

Comments:

| Date: | Time | | Relinquished By / Company Name | | Received By / Company Name |
|---|---|---|---|---|---|
| 5-9-24 | 1605 | 1 | Zach Shade ALS | 2 | DAC-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 FFMP-FORM 19A
Workorder 3358534
Report ID 323566 on 5/21/2024

## Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 07, 2024.

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

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

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


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

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

*Susan Scherer*

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

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

## Sample Summary

| Lab ID | Sample ID | Matrix | Date Collected | Date Received | Collector | Collection Company |
|---|---|---|---|---|---|---|
| 3358534001 | FFMP04AW | Ground Water | 05/07/2024 11:23 | 05/07/2024 17:05 | BGS | Analytical Laboratory Service |
| 3358534002 | FFMP03AW | Ground Water | 05/07/2024 12:36 | 05/07/2024 17:05 | BGS | Analytical Laboratory Service |
| 3358534003 | FFMP005W | Ground Water | 05/07/2024 13:14 | 05/07/2024 17:05 | BGS | Analytical Laboratory Service |
| 3358534004 | FFMP26RW | Ground Water | 05/07/2024 13:14 | 05/07/2024 17:05 | BGS | Analytical Laboratory Service |
| 3358534005 | FFMP30RW | Ground Water | 05/07/2024 15:34 | 05/07/2024 17:05 | 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. | |
|---|---|
| E | Result reported exceeds instrument calibration |
| 1 | The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Bromomethane. The % Recovery was reported as 238 and the control limits were 45 to 148. |
| 2 | The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Chloroethane. The % Recovery was reported as 174 and the control limits were 51 to 142. |
| 3 | The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Iodomethane. The % Recovery was reported as 140 and the control limits were 37 to 128. |
| 4 | The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Trichlorofluoromethane. The % Recovery was reported as 154 and the control limits were 38 to 123. |
| 5 | The Total Alkalinity is titrated to a pH of 4.5 and reported as mg CaCO3/L. |
| 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 type LLCCV for method SW846 6020A was outside the control limits for the analyte Se. The % RSD was reported as 24.7 and the control limits were 0 to 20. |
| 8 | The QC type LLCCV for method SW846 6020A was outside the control limits for the analyte V. The % RSD was reported as 22.0 and the control limits were 0 to 20. |
| 9 | This sample was reran out of hold within the instrument's calibration range, for the analyte Nitrate/Nitrite -N, and confirms the initial in-hold reported result. |
| 10 | The sample was originally run within hold time, but required further analysis that exceeded hold time. |
| 11 | The QC sample type MS for method SW846 7470A was outside the control limits for the analyte Mercury, Total. The % Recovery was reported as -.04 and the control limits were 70 to 130. |
| 12 | The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. The sample was post-digestion spiked, and this matrix spike was within acceptable recovery limits. |
| 13 | The QC sample type MSD for method SW846 7470A was outside the control limits for the analyte Mercury, Total. The % Recovery was reported as .12 and the control limits were 70 to 130. |

# Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP04AW | Collected | 05/07/2024 11:23 |
| Lab Sample ID | 3358534001 | Lab Receipt | 05/07/2024 17:05 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 32.71 | Feet | | Field | # |
| Dissolved Oxygen | 0.01 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 560.72 | Feet | | Field | # |
| Flow Rate | 2.03 | gal/min | | Field | # |
| Ground Water Elevation | 528.01 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | 128 | mV | | Field | # |
| pH, Field (SM4500B) | 6.96 | pH_Units | | Field | # |
| Sample Depth | 146.00 | Feet | | Field | # |
| Specific Conductance, Field | 2014 | umhos/cm | 1 | Field | # |
| Temperature | 15.36 | Deg. C | | Field | # |
| Total Well Depth | 148.50 | Feet | | Field | # |
| Volume in Water Column | 170.21 | Gallons | | Field | # |
| Water Level After Purge | 83.58 | Feet | | Field | # |
| Well Volumes Purged | 1.01 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.18 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.19 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 142 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 141 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Dissolved | 26.3 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 26.8 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.51 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.50 | mg/L | 0.0056 | SW846 6020A | # |
| Nickel, Total | 0.014 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 2.7 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 2.7 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 89.0 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 88.2 | mg/L | 0.11 | SW846 6020A | # |
| **VOLATILE ORGANICS** | | | | | |
| Bromomethane | 1.5 | ug/L | 1.0 | SW846 8260B | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 187 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 187 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 335 | mg/L | 5.0 | EPA 300.0 | # |
| pH | 7.85 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 1470 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 56.8 | mg/L | 5.0 | EPA 300.0 | # |
| Total Dissolved Solids | 1020 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 0.80 | mg/L | 0.50 | SM5310B-14 | # |
| Turbidity | 0.30 | NTU | 0.30 | SM2130B-2011 | # |

# Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP03AW | Collected | 05/07/2024 12:36 |
| Lab Sample ID | 3358534002 | Lab Receipt | 05/07/2024 17:05 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 47.82 | Feet | | Field | # |
| Dissolved Oxygen | 1.40 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 590.90 | Feet | | Field | # |
| Flow Rate | 2.03 | gal/min | | Field | # |
| Ground Water Elevation | 543.08 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | 320 | mV | | Field | # |
| pH, Field (SM4500B) | 5.16 | pH_Units | | Field | # |
| Sample Depth | 130.00 | Feet | | Field | # |
| Specific Conductance, Field | 510 | umhos/cm | 1 | Field | # |
| Temperature | 14.71 | Deg. C | | Field | # |
| Total Well Depth | 148.40 | Feet | | Field | # |
| Volume in Water Column | 147.85 | Gallons | | Field | # |
| Water Level After Purge | 84.23 | Feet | | Field | # |
| Well Volumes Purged | 1.03 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.059 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.058 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 19.8 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 19.6 | mg/L | 0.11 | SW846 6020A | # |
| Copper, Dissolved | 0.0063 | mg/L | 0.0056 | SW846 6020A | # |
| Copper, Total | 0.0067 | mg/L | 0.0056 | SW846 6020A | # |
| Magnesium, Dissolved | 16.2 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 16.6 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.37 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.38 | mg/L | 0.0056 | SW846 6020A | # |
| Nickel, Total | 0.012 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 1.5 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 1.5 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 16.0 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 15.6 | mg/L | 0.11 | SW846 6020A | # |
| Zinc, Dissolved | 0.022 | mg/L | 0.0056 | SW846 6020A | # |
| Zinc, Total | 0.022 | mg/L | 0.0056 | SW846 6020A | # |
| **VOLATILE ORGANICS** | | | | | |
| Bromomethane | 1.1 | ug/L | 1.0 | SW846 8260B | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Total | 12 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 51.9 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 20.7 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.08 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 365 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 2.7 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 204 | mg/L | 25 | SM2540C-15 | # |

## Detected Results Summary

Sample - FFMP03AW (cont.)

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP005W | Collected | 05/07/2024 13:14 |
| Lab Sample ID | 3358534003 | Lab Receipt | 05/07/2024 17:05 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 61.16 | Feet | | Field | # |
| Dissolved Oxygen | 0.02 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 537.40 | Feet | | Field | # |
| Flow Rate | 1.92 | gal/min | | Field | # |
| Ground Water Elevation | 476.24 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | 262 | mV | | Field | # |
| pH, Field (SM4500B) | 5.67 | pH_Units | | Field | # |
| Sample Depth | 135.00 | Feet | | Field | # |
| Specific Conductance, Field | 1077 | umhos/cm | 1 | Field | # |
| Temperature | 13.87 | Deg. C | | Field | # |
| Total Well Depth | 149.70 | Feet | | Field | # |
| Volume in Water Column | 130.15 | Gallons | | Field | # |
| Water Level After Purge | 84.19 | Feet | | Field | # |
| Well Volumes Purged | 1.03 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.042 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.042 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 65.8 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 66.4 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Dissolved | 17.2 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 17.3 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.17 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.17 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 3.2 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 3.2 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 47.9 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 48.4 | mg/L | 0.11 | SW846 6020A | # |
| **VOLATILE ORGANICS** | | | | | |
| Bromomethane | 1.2 | ug/L | 1.0 | SW846 8260B | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 64 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 64 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 152 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 1.2 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.77 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 774 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 86.0 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 506 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 1.7 | mg/L | 0.50 | SM5310B-14 | # |

# Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP26RW | Collected | 05/07/2024 13:14 |
| Lab Sample ID | 3358534004 | Lab Receipt | 05/07/2024 17:05 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 70.98 | Feet | | Field | # |
| Dissolved Oxygen | 0.10 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 547.40 | Feet | | Field | # |
| Flow Rate | 1.98 | gal/min | | Field | # |
| Ground Water Elevation | 476.42 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | 342 | mV | | Field | # |
| pH, Field (SM4500B) | 5.67 | pH_Units | | Field | # |
| Sample Depth | 105.00 | Feet | | Field | # |
| Specific Conductance, Field | 974 | umhos/cm | 1 | Field | # |
| Temperature | 14.67 | Deg. C | | Field | # |
| Total Well Depth | 118.30 | Feet | | Field | # |
| Volume in Water Column | 69.56 | Gallons | | Field | # |
| Water Level After Purge | 90.82 | Feet | | Field | # |
| Well Volumes Purged | 1.57 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.065 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.065 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 57.4 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 58.2 | mg/L | 0.11 | SW846 6020A | # |
| Cobalt, Total | 0.017 | mg/L | 0.0056 | SW846 6020A | # |
| Iron, Total | 0.066 | mg/L | 0.056 | SW846 6020A | # |
| Magnesium, Dissolved | 14.9 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 14.9 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.71 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.71 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 7.5 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 7.4 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 47.3 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 47.6 | mg/L | 0.11 | SW846 6020A | # |
| Zinc, Dissolved | 0.0069 | mg/L | 0.0056 | SW846 6020A | # |
| Zinc, Total | 0.0067 | mg/L | 0.0056 | SW846 6020A | # |
| **VOLATILE ORGANICS** | | | | | |
| Bromomethane | 1.4 | ug/L | 1.0 | SW846 8260B | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 67 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 67 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 121 | mg/L | 2.0 | EPA 300.0 | # |
| pH | 6.78 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 704 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 102 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 392 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 2.2 | mg/L | 0.50 | SM5310B-14 | # |

## Detected Results Summary

Sample - FFMP26RW (cont.)

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **WET CHEMISTRY (cont.)** | | | | | |
| Turbidity | 0.95 | NTU | 0.30 | SM2130B-2011 | # |

# Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP30RW | Collected | 05/07/2024 15:34 |
| Lab Sample ID | 3358534005 | Lab Receipt | 05/07/2024 17:05 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 33.57 | Feet | | Field | # |
| Dissolved Oxygen | 2.49 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 562.30 | Feet | | Field | # |
| Flow Rate | 1.93 | gal/min | | Field | # |
| Ground Water Elevation | 528.73 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | 269 | mV | | Field | # |
| pH, Field (SM4500B) | 5.38 | pH_Units | | Field | # |
| Sample Depth | 85.00 | Feet | | Field | # |
| Specific Conductance, Field | 965 | umhos/cm | 1 | Field | # |
| Temperature | 13.91 | Deg. C | | Field | # |
| Total Well Depth | 94.20 | Feet | | Field | # |
| Volume in Water Column | 89.13 | Gallons | | Field | # |
| Water Level After Purge | 43.91 | Feet | | Field | # |
| Well Volumes Purged | 1.95 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.068 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.068 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 27.3 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 27.3 | mg/L | 0.11 | SW846 6020A | # |
| Cobalt, Total | 0.014 | mg/L | 0.0056 | SW846 6020A | # |
| Iron, Total | 0.058 | mg/L | 0.056 | SW846 6020A | # |
| Magnesium, Dissolved | 15.2 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 15.1 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 1.5 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 1.5 | mg/L | 0.0056 | SW846 6020A | # |
| Mercury, Dissolved | 0.00060 | mg/L | 0.00050 | SW846 7470A | # |
| Mercury, Total | 0.00066 | mg/L | 0.00050 | SW846 7470A | # |
| Nickel, Total | 0.018 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 4.3 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 4.3 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 78.0 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 77.5 | mg/L | 0.11 | SW846 6020A | # |
| Zinc, Dissolved | 0.012 | mg/L | 0.0056 | SW846 6020A | # |
| Zinc, Total | 0.012 | mg/L | 0.0056 | SW846 6020A | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 27 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 27 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 181 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 6.4 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.32 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 719 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 21.9 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 416 | mg/L | 25 | SM2540C-15 | # |

## Detected Results Summary

Sample - FFMP30RW (cont.)

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **WET CHEMISTRY (cont.)** | | | | | |
| Total Organic Carbon (TOC) | 0.68 | mg/L | 0.50 | SM5310B-14 | # |
| Turbidity | 1.8 | NTU | 0.30 | SM2130B-2011 | # |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP04AW | Collected | 05/07/2024 11:23 |
| Lab Sample ID | 3358534001 | Lab Receipt | 05/07/2024 17:05 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 32.71 | | Feet | | Field | 1 | 05/07/2024 11:23 | BGS | F |
| Dissolved Oxygen | 0.01 | | mg/L | 0.01 | Field | 1 | 05/07/2024 11:23 | BGS | F |
| Elev Top MW Casing above MSL | 560.72 | | Feet | | Field | 1 | 05/07/2024 11:23 | BGS | F |
| Flow Rate | 2.03 | | gal/min | | Field | 1 | 05/07/2024 11:23 | BGS | F |
| Ground Water Elevation | 528.01 | | ft/MSL | | Field | 1 | 05/07/2024 11:23 | BGS | F |
| Oxidation-Reduction Potential | 128 | | mV | | Field | 1 | 05/07/2024 11:23 | BGS | F |
| pH, Field (SM4500B) | 6.96 | | pH_Units | | Field | 1 | 05/07/2024 11:23 | BGS | F |
| Sample Depth | 146.00 | | Feet | | Field | 1 | 05/07/2024 11:23 | BGS | F |
| Specific Conductance, Field | 2014 | | umhos/cm | 1 | Field | 1 | 05/07/2024 11:23 | BGS | F |
| Temperature | 15.36 | | Deg. C | | Field | 1 | 05/07/2024 11:23 | BGS | F |
| Total Well Depth | 148.50 | | Feet | | Field | 1 | 05/07/2024 11:23 | BGS | F |
| Turbidity, Field | ND | ND | NTU | 1 | Field | 1 | 05/07/2024 11:23 | BGS | F |
| Volume in Water Column | 170.21 | | Gallons | | Field | 1 | 05/07/2024 11:23 | BGS | F |
| Water Level After Purge | 83.58 | | Feet | | Field | 1 | 05/07/2024 11:23 | BGS | F |
| Well Volumes Purged | 1.01 | | Vol | | Field | 1 | 05/07/2024 11:23 | 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 | 05/15/2024 19:15 | ADB | 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 | 05/15/2024 11:12 | MO | E1 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/15/2024 12:26 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Barium, Dissolved | 0.18 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:26 | MO | D1 |
| Barium, Total | 0.19 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 12:26 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Calcium, Dissolved | 142 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:26 | MO | D1 |
| Calcium, Total | 141 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:26 | MO | D1 |
| Chromium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Cobalt, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:26 | MO | D1 |
| Copper, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Iron, Dissolved | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 12:26 | MO | D1 |
| Iron, Total | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:26 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Magnesium, Dissolved | 26.3 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:26 | MO | D1 |
| Magnesium, Total | 26.8 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Manganese, Dissolved | 0.51 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:26 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP04AW | Collected | 05/07/2024 11:23 |
| Lab Sample ID | 3358534001 | Lab Receipt | 05/07/2024 17:05 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.50 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/09/2024 10:57 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/09/2024 11:42 | JSE | E |
| Nickel, Total | 0.014 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Potassium, Dissolved | 2.7 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:26 | MO | D1 |
| Potassium, Total | 2.7 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Selenium, Dissolved | ND | ND,7 | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:26 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:26 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Sodium, Dissolved | 89.0 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:26 | MO | D1 |
| Sodium, Total | 88.2 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Vanadium, Total | ND | ND,8 | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:12 | MO | E1 |
| Zinc, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:26 | MO | D1 |
| Zinc, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:12 | 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 | 05/15/2024 19:15 | ADB | J |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Bromomethane | 1.5 | 1 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP04AW | Collected | 05/07/2024 11:23 |
| Lab Sample ID | 3358534001 | Lab Receipt | 05/07/2024 17:05 |

## 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 | 05/15/2024 19:15 | ADB | J |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Chloroethane | ND | ND,2 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Iodomethane | ND | ND,3 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Trichlorofluoromethane | ND | ND,4 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:15 | ADB | J |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 120% | 62 – 133 | 05/15/2024 19:15 | |
| 4-Bromofluorobenzene | 460-00-4 | 102% | 79 – 114 | 05/15/2024 19:15 | |
| Dibromofluoromethane | 1868-53-7 | 110% | 78 – 116 | 05/15/2024 19:15 | |
| Toluene-d8 | 2037-26-5 | 99% | 76 – 127 | 05/15/2024 19:15 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 187 | | mg/L | 5 | SM2320B-2011 | 1 | 05/14/2024 17:10 | KMV | A |
| Alkalinity, Total | 187 | 5 | mg/L | 5 | SM2320B-2011 | 1 | 05/14/2024 17:10 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 18:51 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/09/2024 12:30 | KMS | C |
| Chloride | 335 | | mg/L | 5.0 | EPA 300.0 | 5 | 05/08/2024 15:08 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.50 | EPA 300.0 | 5 | 05/08/2024 15:08 | J1W | A |
| Nitrate-N | ND | ND | mg/L | 2.5 | EPA 300.0 | 5 | 05/08/2024 15:08 | J1W | A |
| pH | 7.85 | 6 | pH_Units | | S4500HB-11 | 1 | 05/09/2024 15:42 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 10:31 | AKH | I |
| Specific Conductance | 1470 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/08/2024 17:22 | BLP | A |
| Sulfate | 56.8 | | mg/L | 5.0 | EPA 300.0 | 5 | 05/08/2024 15:08 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP04AW | Collected | 05/07/2024 11:23 |
| Lab Sample ID | 3358534001 | Lab Receipt | 05/07/2024 17:05 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1020 | | mg/L | 25 | SM2540C-15 | 1 | 05/08/2024 14:40 | RAG | A |
| Total Organic Carbon (TOC) | 0.80 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/09/2024 04:56 | PAG | G |
| Turbidity | 0.30 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/08/2024 10:00 | GMM | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP03AW | Collected | 05/07/2024 12:36 |
| Lab Sample ID | 3358534002 | Lab Receipt | 05/07/2024 17:05 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 47.82 | | Feet | | Field | 1 | 05/07/2024 11:36 | BGS | F |
| Dissolved Oxygen | 1.40 | | mg/L | 0.01 | Field | 1 | 05/07/2024 11:36 | BGS | F |
| Elev Top MW Casing above MSL | 590.90 | | Feet | | Field | 1 | 05/07/2024 11:36 | BGS | F |
| Flow Rate | 2.03 | | gal/min | | Field | 1 | 05/07/2024 11:36 | BGS | F |
| Ground Water Elevation | 543.08 | | ft/MSL | | Field | 1 | 05/07/2024 11:36 | BGS | F |
| Oxidation-Reduction Potential | 320 | | mV | | Field | 1 | 05/07/2024 11:36 | BGS | F |
| pH, Field (SM4500B) | 5.16 | | pH_Units | | Field | 1 | 05/07/2024 11:36 | BGS | F |
| Sample Depth | 130.00 | | Feet | | Field | 1 | 05/07/2024 11:36 | BGS | F |
| Specific Conductance, Field | 510 | | umhos/cm | 1 | Field | 1 | 05/07/2024 11:36 | BGS | F |
| Temperature | 14.71 | | Deg. C | | Field | 1 | 05/07/2024 11:36 | BGS | F |
| Total Well Depth | 148.40 | | Feet | | Field | 1 | 05/07/2024 11:36 | BGS | F |
| Turbidity, Field | ND | ND | NTU | 1 | Field | 1 | 05/07/2024 11:36 | BGS | F |
| Volume in Water Column | 147.85 | | Gallons | | Field | 1 | 05/07/2024 11:36 | BGS | F |
| Water Level After Purge | 84.23 | | Feet | | Field | 1 | 05/07/2024 11:36 | BGS | F |
| Well Volumes Purged | 1.03 | | Vol | | Field | 1 | 05/07/2024 11:36 | 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 | 05/15/2024 19:38 | ADB | 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 | 05/15/2024 11:14 | MO | E1 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/15/2024 12:28 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Barium, Dissolved | 0.059 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:28 | MO | D1 |
| Barium, Total | 0.058 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 12:28 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Calcium, Dissolved | 19.8 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:28 | MO | D1 |
| Calcium, Total | 19.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:28 | MO | D1 |
| Chromium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Cobalt, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Copper, Dissolved | 0.0063 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:28 | MO | D1 |
| Copper, Total | 0.0067 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Iron, Dissolved | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 12:28 | MO | D1 |
| Iron, Total | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:28 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Magnesium, Dissolved | 16.2 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:28 | MO | D1 |
| Magnesium, Total | 16.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Manganese, Dissolved | 0.37 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:28 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP03AW | Collected | 05/07/2024 12:36 |
| Lab Sample ID | 3358534002 | Lab Receipt | 05/07/2024 17:05 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.38 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/09/2024 10:58 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/09/2024 11:43 | JSE | E |
| Nickel, Total | 0.012 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Potassium, Dissolved | 1.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:28 | MO | D1 |
| Potassium, Total | 1.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Selenium, Dissolved | ND | ND,7 | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:28 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:28 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Sodium, Dissolved | 16.0 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:28 | MO | D1 |
| Sodium, Total | 15.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Vanadium, Total | ND | ND,8 | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:14 | MO | E1 |
| Zinc, Dissolved | 0.022 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:28 | MO | D1 |
| Zinc, Total | 0.022 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:14 | 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 | 05/15/2024 19:38 | ADB | J |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Bromomethane | 1.1 | 1 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP03AW | Collected | 05/07/2024 12:36 |
| Lab Sample ID | 3358534002 | Lab Receipt | 05/07/2024 17:05 |

## 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 | 05/15/2024 19:38 | ADB | J |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Chloroethane | ND | ND,2 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Iodomethane | ND | ND,3 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Trichlorofluoromethane | ND | ND,4 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 19:38 | ADB | J |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 123% | 62 – 133 | 05/15/2024 19:38 | |
| 4-Bromofluorobenzene | 460-00-4 | 98.5% | 79 – 114 | 05/15/2024 19:38 | |
| Dibromofluoromethane | 1868-53-7 | 114% | 78 – 116 | 05/15/2024 19:38 | |
| Toluene-d8 | 2037-26-5 | 101% | 76 – 127 | 05/15/2024 19:38 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | ND | ND | mg/L | 5 | SM2320B-2011 | 1 | 05/17/2024 15:50 | KMV | A |
| Alkalinity, Total | 12 | 5 | mg/L | 5 | SM2320B-2011 | 1 | 05/17/2024 15:50 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 20:06 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/09/2024 12:30 | KMS | C |
| Chloride | 51.9 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/08/2024 15:20 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/08/2024 15:20 | J1W | A |
| Nitrate-N | 20.7 | E,9,10 | mg/L | 1.0 | EPA 300.0 | 2 | 05/08/2024 15:20 | J1W | A |
| pH | 6.08 | 6 | pH_Units | | S4500HB-11 | 1 | 05/09/2024 15:55 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 10:19 | AKH | I |
| Specific Conductance | 365 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/08/2024 17:22 | BLP | A |
| Sulfate | 2.7 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/08/2024 15:20 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP03AW | Collected | 05/07/2024 12:36 |
| Lab Sample ID | 3358534002 | Lab Receipt | 05/07/2024 17:05 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 204 | | mg/L | 25 | SM2540C-15 | 1 | 05/08/2024 14:40 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-14 | 1 | 05/09/2024 04:56 | PAG | G |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 05/08/2024 10:00 | GMM | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP005W | Collected | 05/07/2024 13:14 |
| Lab Sample ID | 3358534003 | Lab Receipt | 05/07/2024 17:05 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 61.16 | | Feet | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Dissolved Oxygen | 0.02 | | mg/L | 0.01 | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Elev Top MW Casing above MSL | 537.40 | | Feet | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Flow Rate | 1.92 | | gal/min | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Ground Water Elevation | 476.24 | | ft/MSL | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Oxidation-Reduction Potential | 262 | | mV | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| pH, Field (SM4500B) | 5.67 | | pH_Units | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Sample Depth | 135.00 | | Feet | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Specific Conductance, Field | 1077 | | umhos/cm | 1 | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Temperature | 13.87 | | Deg. C | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Total Well Depth | 149.70 | | Feet | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Turbidity, Field | ND | ND | NTU | 1 | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Volume in Water Column | 130.15 | | Gallons | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Water Level After Purge | 84.19 | | Feet | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Well Volumes Purged | 1.03 | | Vol | | Field | 1 | 05/07/2024 13:14 | 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 | 05/15/2024 20:02 | ADB | 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 | 05/15/2024 11:17 | MO | E1 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/15/2024 12:30 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Barium, Dissolved | 0.042 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:30 | MO | D1 |
| Barium, Total | 0.042 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 12:30 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Calcium, Dissolved | 65.8 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:30 | MO | D1 |
| Calcium, Total | 66.4 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:30 | MO | D1 |
| Chromium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Cobalt, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:30 | MO | D1 |
| Copper, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Iron, Dissolved | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 12:30 | MO | D1 |
| Iron, Total | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:30 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Magnesium, Dissolved | 17.2 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:30 | MO | D1 |
| Magnesium, Total | 17.3 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Manganese, Dissolved | 0.17 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:30 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP005W | Collected | 05/07/2024 13:14 |
| Lab Sample ID | 3358534003 | Lab Receipt | 05/07/2024 17:05 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.17 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/09/2024 10:59 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/09/2024 11:44 | JSE | E |
| Nickel, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Potassium, Dissolved | 3.2 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:30 | MO | D1 |
| Potassium, Total | 3.2 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Selenium, Dissolved | ND | ND,7 | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:30 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:30 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Sodium, Dissolved | 47.9 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:30 | MO | D1 |
| Sodium, Total | 48.4 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Vanadium, Total | ND | ND,8 | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:17 | MO | E1 |
| Zinc, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:30 | MO | D1 |
| Zinc, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:17 | 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 | 05/15/2024 20:02 | ADB | J |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Bromomethane | 1.2 | 1 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP005W | Collected | 05/07/2024 13:14 |
| Lab Sample ID | 3358534003 | Lab Receipt | 05/07/2024 17:05 |

## 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 | 05/15/2024 20:02 | ADB | J |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Chloroethane | ND | ND,2 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Iodomethane | ND | ND,3 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Trichlorofluoromethane | ND | ND,4 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:02 | ADB | J |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 119% | 62 – 133 | 05/15/2024 20:02 | |
| 4-Bromofluorobenzene | 460-00-4 | 99.9% | 79 – 114 | 05/15/2024 20:02 | |
| Dibromofluoromethane | 1868-53-7 | 110% | 78 – 116 | 05/15/2024 20:02 | |
| Toluene-d8 | 2037-26-5 | 101% | 76 – 127 | 05/15/2024 20:02 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 64 | | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 14:45 | KMV | A |
| Alkalinity, Total | 64 | 5 | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 14:45 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 19:54 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/09/2024 12:30 | KMS | C |
| Chloride | 152 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/08/2024 15:31 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/08/2024 15:31 | J1W | A |
| Nitrate-N | 1.2 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/08/2024 15:31 | J1W | A |
| pH | 6.77 | 6 | pH_Units | | S4500HB-11 | 1 | 05/09/2024 16:07 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 10:23 | AKH | I |
| Specific Conductance | 774 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/08/2024 17:22 | BLP | A |
| Sulfate | 86.0 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/08/2024 15:31 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP005W | Collected | 05/07/2024 13:14 |
| Lab Sample ID | 3358534003 | Lab Receipt | 05/07/2024 17:05 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 506 | | mg/L | 25 | SM2540C-15 | 1 | 05/08/2024 14:40 | RAG | A |
| Total Organic Carbon (TOC) | 1.7 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/09/2024 04:56 | PAG | G |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 05/08/2024 10:00 | GMM | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP26RW | Collected | 05/07/2024 13:14 |
| Lab Sample ID | 3358534004 | Lab Receipt | 05/07/2024 17:05 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 70.98 | | Feet | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Dissolved Oxygen | 0.10 | | mg/L | 0.01 | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Elev Top MW Casing above MSL | 547.40 | | Feet | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Flow Rate | 1.98 | | gal/min | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Ground Water Elevation | 476.42 | | ft/MSL | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Oxidation-Reduction Potential | 342 | | mV | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| pH, Field (SM4500B) | 5.67 | | pH_Units | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Sample Depth | 105.00 | | Feet | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Specific Conductance, Field | 974 | | umhos/cm | 1 | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Temperature | 14.67 | | Deg. C | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Total Well Depth | 118.30 | | Feet | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Turbidity, Field | ND | ND | NTU | 1 | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Volume in Water Column | 69.56 | | Gallons | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Water Level After Purge | 90.82 | | Feet | | Field | 1 | 05/07/2024 13:14 | BGS | F |
| Well Volumes Purged | 1.57 | | Vol | | Field | 1 | 05/07/2024 13:14 | 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 | 05/15/2024 20:25 | ADB | 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 | 05/15/2024 11:19 | MO | E1 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/15/2024 12:43 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Barium, Dissolved | 0.065 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:43 | MO | D1 |
| Barium, Total | 0.065 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 12:43 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Calcium, Dissolved | 57.4 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:43 | MO | D1 |
| Calcium, Total | 58.2 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:43 | MO | D1 |
| Chromium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Cobalt, Total | 0.017 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:43 | MO | D1 |
| Copper, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Iron, Dissolved | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 12:43 | MO | D1 |
| Iron, Total | 0.066 | | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:43 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Magnesium, Dissolved | 14.9 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:43 | MO | D1 |
| Magnesium, Total | 14.9 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Manganese, Dissolved | 0.71 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:43 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP26RW | Collected | 05/07/2024 13:14 |
| Lab Sample ID | 3358534004 | Lab Receipt | 05/07/2024 17:05 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.71 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/09/2024 11:00 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/09/2024 11:52 | JSE | E |
| Nickel, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Potassium, Dissolved | 7.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:43 | MO | D1 |
| Potassium, Total | 7.4 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Selenium, Dissolved | ND | ND,7 | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:43 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:43 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Sodium, Dissolved | 47.3 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:43 | MO | D1 |
| Sodium, Total | 47.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Vanadium, Total | ND | ND,8 | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:19 | MO | E1 |
| Zinc, Dissolved | 0.0069 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:43 | MO | D1 |
| Zinc, Total | 0.0067 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:19 | 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 | 05/15/2024 20:25 | ADB | J |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Bromomethane | 1.4 | 1 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP26RW | Collected | 05/07/2024 13:14 |
| Lab Sample ID | 3358534004 | Lab Receipt | 05/07/2024 17:05 |

## 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 | 05/15/2024 20:25 | ADB | J |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Chloroethane | ND | ND,2 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Iodomethane | ND | ND,3 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Trichlorofluoromethane | ND | ND,4 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:25 | ADB | J |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 122% | 62 – 133 | 05/15/2024 20:25 | |
| 4-Bromofluorobenzene | 460-00-4 | 100% | 79 – 114 | 05/15/2024 20:25 | |
| Dibromofluoromethane | 1868-53-7 | 113% | 78 – 116 | 05/15/2024 20:25 | |
| Toluene-d8 | 2037-26-5 | 99.5% | 76 – 127 | 05/15/2024 20:25 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 67 | | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 14:56 | KMV | A |
| Alkalinity, Total | 67 | 5 | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 14:56 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 18:33 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/09/2024 12:30 | KMS | C |
| Chloride | 121 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/08/2024 15:43 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/08/2024 15:43 | J1W | A |
| Nitrate-N | ND | ND | mg/L | 1.0 | EPA 300.0 | 2 | 05/08/2024 15:43 | J1W | A |
| pH | 6.78 | 6 | pH_Units | | S4500HB-11 | 1 | 05/09/2024 16:19 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 10:27 | AKH | I |
| Specific Conductance | 704 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/08/2024 17:22 | BLP | A |
| Sulfate | 102 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/08/2024 15:43 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP26RW | Collected | 05/07/2024 13:14 |
| Lab Sample ID | 3358534004 | Lab Receipt | 05/07/2024 17:05 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 392 | | mg/L | 25 | SM2540C-15 | 1 | 05/08/2024 14:40 | RAG | A |
| Total Organic Carbon (TOC) | 2.2 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/09/2024 04:56 | PAG | G |
| Turbidity | 0.95 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/08/2024 10:00 | GMM | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP30RW | Collected | 05/07/2024 15:34 |
| Lab Sample ID | 3358534005 | Lab Receipt | 05/07/2024 17:05 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 33.57 | | Feet | | Field | 1 | 05/07/2024 15:34 | BGS | F |
| Dissolved Oxygen | 2.49 | | mg/L | 0.01 | Field | 1 | 05/07/2024 15:34 | BGS | F |
| Elev Top MW Casing above MSL | 562.30 | | Feet | | Field | 1 | 05/07/2024 15:34 | BGS | F |
| Flow Rate | 1.93 | | gal/min | | Field | 1 | 05/07/2024 15:34 | BGS | F |
| Ground Water Elevation | 528.73 | | ft/MSL | | Field | 1 | 05/07/2024 15:34 | BGS | F |
| Oxidation-Reduction Potential | 269 | | mV | | Field | 1 | 05/07/2024 15:34 | BGS | F |
| pH, Field (SM4500B) | 5.38 | | pH_Units | | Field | 1 | 05/07/2024 15:34 | BGS | F |
| Sample Depth | 85.00 | | Feet | | Field | 1 | 05/07/2024 15:34 | BGS | F |
| Specific Conductance, Field | 965 | | umhos/cm | 1 | Field | 1 | 05/07/2024 15:34 | BGS | F |
| Temperature | 13.91 | | Deg. C | | Field | 1 | 05/07/2024 15:34 | BGS | F |
| Total Well Depth | 94.20 | | Feet | | Field | 1 | 05/07/2024 15:34 | BGS | F |
| Turbidity, Field | ND | ND | NTU | 1 | Field | 1 | 05/07/2024 15:34 | BGS | F |
| Volume in Water Column | 89.13 | | Gallons | | Field | 1 | 05/07/2024 15:34 | BGS | F |
| Water Level After Purge | 43.91 | | Feet | | Field | 1 | 05/07/2024 15:34 | BGS | F |
| Well Volumes Purged | 1.95 | | Vol | | Field | 1 | 05/07/2024 15:34 | 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 | 05/15/2024 20:48 | ADB | 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 | 05/15/2024 11:21 | MO | E1 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/15/2024 12:45 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Barium, Dissolved | 0.068 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:45 | MO | D1 |
| Barium, Total | 0.068 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 12:45 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Calcium, Dissolved | 27.3 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:45 | MO | D1 |
| Calcium, Total | 27.3 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:45 | MO | D1 |
| Chromium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Cobalt, Total | 0.014 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:45 | MO | D1 |
| Copper, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Iron, Dissolved | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 12:45 | MO | D1 |
| Iron, Total | 0.058 | | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:45 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Magnesium, Dissolved | 15.2 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:45 | MO | D1 |
| Magnesium, Total | 15.1 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Manganese, Dissolved | 1.5 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:45 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP30RW | Collected | 05/07/2024 15:34 |
| Lab Sample ID | 3358534005 | Lab Receipt | 05/07/2024 17:05 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 1.5 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Mercury, Dissolved | 0.00060 | | mg/L | 0.00050 | SW846 7470A | 1 | 05/09/2024 11:02 | JSE | D |
| Mercury, Total | 0.00066 | 11,12,13 | mg/L | 0.00050 | SW846 7470A | 1 | 05/09/2024 11:54 | JSE | E |
| Nickel, Total | 0.018 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Potassium, Dissolved | 4.3 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:45 | MO | D1 |
| Potassium, Total | 4.3 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Selenium, Dissolved | ND | ND,7 | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:45 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:45 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Sodium, Dissolved | 78.0 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:45 | MO | D1 |
| Sodium, Total | 77.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Vanadium, Total | ND | ND,8 | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:21 | MO | E1 |
| Zinc, Dissolved | 0.012 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:45 | MO | D1 |
| Zinc, Total | 0.012 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:21 | 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 | 05/15/2024 20:48 | ADB | J |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Bromomethane | ND | ND,1 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP30RW | Collected | 05/07/2024 15:34 |
| Lab Sample ID | 3358534005 | Lab Receipt | 05/07/2024 17:05 |

## 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 | 05/15/2024 20:48 | ADB | J |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Chloroethane | ND | ND,2 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Iodomethane | ND | ND,3 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Trichlorofluoromethane | ND | ND,4 | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 20:48 | ADB | J |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 124% | 62 – 133 | 05/15/2024 20:48 | |
| 4-Bromofluorobenzene | 460-00-4 | 106% | 79 – 114 | 05/15/2024 20:48 | |
| Dibromofluoromethane | 1868-53-7 | 116% | 78 – 116 | 05/15/2024 20:48 | |
| Toluene-d8 | 2037-26-5 | 104% | 76 – 127 | 05/15/2024 20:48 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 27 | | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 15:08 | KMV | A |
| Alkalinity, Total | 27 | 5 | mg/L | 5 | SM2320B-2011 | 1 | 05/15/2024 15:08 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 19:36 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/09/2024 12:30 | KMS | C |
| Chloride | 181 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/08/2024 15:54 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/08/2024 15:54 | J1W | A |
| Nitrate-N | 6.4 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/08/2024 15:54 | J1W | A |
| pH | 6.32 | 6 | pH_Units | | S4500HB-11 | 1 | 05/09/2024 16:32 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 15:06 | AKH | I |
| Specific Conductance | 719 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/08/2024 17:22 | BLP | A |
| Sulfate | 21.9 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/08/2024 15:54 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP30RW | Collected | 05/07/2024 15:34 |
| Lab Sample ID | 3358534005 | Lab Receipt | 05/07/2024 17:05 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 416 | | mg/L | 25 | SM2540C-15 | 1 | 05/08/2024 14:40 | RAG | A |
| Total Organic Carbon (TOC) | 0.68 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/09/2024 04:56 | PAG | G |
| Turbidity | 1.8 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/08/2024 10:00 | GMM | A |

## Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3358534001 | FFMP04AW | 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 | |
| 3358534002 | FFMP03AW | 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 | |
| 3358534003 | FFMP005W | 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 | |

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3358534004 | FFMP26RW | 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 | |
| 3358534005 | FFMP30RW | 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 |
|---|---|---|---|---|---|---|---|
| 3358534001 | FFMP04AW | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1197405 | 05/08/2024 02:32 | ANN | SW846 6020A | 1202941 |
| | | SW846 3015A | 1197724 | 05/09/2024 02:35 | ANN | SW846 6020A | 1202946 |
| | | SW846 7470A | 1197575 | 05/08/2024 15:05 | JSE | SW846 7470A | 1198613 |
| | | SW846 7470A | 1197578 | 05/08/2024 15:05 | JSE | SW846 7470A | 1198614 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1206107 |
| | | N/A | N/A | N/A | | SW846 8260B | 1202967 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1197515 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1198310 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1198316 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201209 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1197517 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202430 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1197666 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1197545 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1197665 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |
| 3358534002 | FFMP03AW | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1197405 | 05/08/2024 02:32 | ANN | SW846 6020A | 1202941 |
| | | SW846 3015A | 1197724 | 05/09/2024 02:35 | ANN | SW846 6020A | 1202946 |
| | | SW846 7470A | 1197575 | 05/08/2024 15:05 | JSE | SW846 7470A | 1198613 |
| | | SW846 7470A | 1197578 | 05/08/2024 15:05 | JSE | SW846 7470A | 1198614 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1206107 |
| | | N/A | N/A | N/A | | SW846 8260B | 1202967 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1197515 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1198310 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1198316 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201209 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1197517 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1205518 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1197666 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1197545 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1197665 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |
| 3358534003 | FFMP005W | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1197405 | 05/08/2024 02:32 | ANN | SW846 6020A | 1202941 |
| | | SW846 3015A | 1197724 | 05/09/2024 02:35 | ANN | SW846 6020A | 1202946 |
| | | SW846 7470A | 1197575 | 05/08/2024 15:05 | JSE | SW846 7470A | 1198613 |
| | | SW846 7470A | 1197578 | 05/08/2024 15:05 | JSE | SW846 7470A | 1198614 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1206107 |
| | | N/A | N/A | N/A | | SW846 8260B | 1202967 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1197515 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1198310 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1198316 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201209 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1197517 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202962 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1197666 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1197545 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1197665 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|---|---|---|---|---|---|---|---|
| 3358534004 | FFMP26RW | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1197405 | 05/08/2024 02:32 | ANN | SW846 6020A | 1202941 |
| | | SW846 3015A | 1197724 | 05/09/2024 02:35 | ANN | SW846 6020A | 1202946 |
| | | SW846 7470A | 1197575 | 05/08/2024 15:05 | JSE | SW846 7470A | 1198613 |
| | | SW846 7470A | 1197579 | 05/08/2024 15:05 | JSE | SW846 7470A | 1198615 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1206107 |
| | | N/A | N/A | N/A | | SW846 8260B | 1202967 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1197515 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1198310 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1198316 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201209 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1197517 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202962 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1197666 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1197545 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1197665 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |
| 3358534005 | FFMP30RW | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1197405 | 05/08/2024 02:32 | ANN | SW846 6020A | 1202941 |
| | | SW846 3015A | 1197724 | 05/09/2024 02:35 | ANN | SW846 6020A | 1202946 |
| | | SW846 7470A | 1197575 | 05/08/2024 15:05 | JSE | SW846 7470A | 1198613 |
| | | SW846 7470A | 1197579 | 05/08/2024 15:05 | JSE | SW846 7470A | 1198615 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1206107 |
| | | N/A | N/A | N/A | | SW846 8260B | 1202967 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1197515 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1198310 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1198316 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201209 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1197517 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1202962 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1197666 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1197545 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1197665 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |

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.

3358534

Logged By: SLS
PM: SJB

34 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/#:** Frey Farm Annual
**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 | HCL | 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 | VOC (form 19A) +LS | pH, Cl, SpC, F, SO4, NO3, Tb, TDS | Alkalinity, HCO3 | FM | Sample Debth for AUX Data | NH3-N, COD | Dis Metals Fe,Mn,Na,Ba,Cr,Cu, Pb,Mg,k,Zn,As,Cd,Se,Ag,Hg,Ca | Metals: Fe,Mn,Na,Ba,Cr,Cu, Pb,Mg,K,Zn,As,Cd,Se,Ag,Hg,Ca |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Enter Number of Containers Per Sample or Field Results Below. | | | | | | | | | |
| 1 | FFMP04AW | 5/7/24 | 1123 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | 1 | 1 |
| 2 | FFMP03AW | 5/7/24 | 1236 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | 1 | 1 |
| 3 | FFMP005W | 5/7/24 | 1314 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | 1 | 1 |
| 4 | FFMP26RW | 5/7/24 | 1314 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | 1 | 1 |
| 5 | FFMP30RW | 5/7/24 | 1534 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | 1 | 1 |
| 6 | | | | | | | | | | | | | | | DPB | |
| 7 | | | | | | | | | | | | | | | 5/7/24 | |
| 8 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |

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

Comments:

| Date: | Time | | Relinquished By / Company Name | | Received By / Company Name |
|---|---|---|---|---|---|
| 5-7-24 | 1700 | 1 | [illegible] ALS | 2 | [illegible] |
| | | 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**

Rev 07.06.2023

...on (completed by Receiving Lab)

Temp Taken By: Therm ID: WO Temp (°C)

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

Temp By: DPB | WO Temp (°C): 3° | Therm ID: 321

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 |

Deviations? NO YES
If YES, list below

Client contact:
Date/Tech:

Screen (uCi)_____
Source? Y N
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 | [ ] CLP-like | [ ] HSCA | |
| [ ] Standard Lvl 2 | [ ] DOD | [ ] Landfill | |
| [ ] Standard Lvl 3 | [ ] NJ RED | [ ] NJ GW | |
| [ ] Standard Lvl 4 | [ ] NJ Full | [ ] _____ | |

**EDDs**

| | |
|---|---|
| [ ] Excel Summary | |
| [ ] Equis | |
| [ ] Custom | |

**Sample Disposal**

| | |
|---|---|
| Lab | [x] |
| Special | [ ] |

EDDS: Format Type

**State Samples Collected In**

| | |
|---|---|
| [ ] NY | |
| [ ] NJ | |
| [x] PA | |
| [ ] WV | |
| [ ] FL | |
| ____ other | |

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 FFMP-FORM 19A
Workorder 3358324
Report ID 323323 on 5/20/2024

## Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on May 06, 2024.

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

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

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


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

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

*Susan Scherer*

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

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

## Sample Summary

| Lab ID | Sample ID | Matrix | Date Collected | Date Received | Collector | Collection Company |
|---|---|---|---|---|---|---|
| 3358324001 | FFMP015W | Ground Water | 05/06/2024 10:57 | 05/06/2024 14:55 | BGS | Analytical Laboratory Service |
| 3358324002 | FFMP033W | Ground Water | 05/06/2024 12:14 | 05/06/2024 14:55 | BGS | Analytical Laboratory Service |
| 3358324003 | FFMP034W | Ground Water | 05/06/2024 13:08 | 05/06/2024 14:55 | BGS | Analytical Laboratory Service |
| 3358324004 | FFMP029W | Ground Water | 05/06/2024 13:24 | 05/06/2024 14:55 | 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 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 QC type LLCCV for method SW846 6020A was outside the control limits for the analyte V. The % RSD was reported as 22.0 and the control limits were 0 to 20. |
| 5 | Due to sample matrix interferences, matrix spike recovery was outside of the established control limits. |
| 6 | The QC type LLCCV for method SW846 6020A was outside the control limits for the analyte Se. The % RSD was reported as 24.7 and the control limits were 0 to 20. |
| 7 | The QC sample type MS for method SW846 9066 was outside the control limits for the analyte Phenolics. The % Recovery was reported as 86.1 and the control limits were 90 to 110. |

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP015W | Collected | 05/06/2024 10:57 |
| Lab Sample ID | 3358324001 | Lab Receipt | 05/06/2024 14:55 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 58.17 | Feet | | Field | # |
| Dissolved Oxygen | 8.24 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 576.40 | Feet | | Field | # |
| Flow Rate | 1.82 | gal/min | | Field | # |
| Ground Water Elevation | 518.23 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | 288 | mV | | Field | # |
| pH, Field (SM4500B) | 5.38 | pH_Units | | Field | # |
| Sample Depth | 135.00 | Feet | | Field | # |
| Specific Conductance, Field | 288 | umhos/cm | 1 | Field | # |
| Temperature | 14.28 | Deg. C | | Field | # |
| Total Well Depth | 149.90 | Feet | | Field | # |
| Volume in Water Column | 134.84 | Gallons | | Field | # |
| Water Level After Purge | 94.70 | Feet | | Field | # |
| Well Volumes Purged | 1.01 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.043 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.045 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 8.5 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 8.6 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Dissolved | 12.7 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 12.6 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.031 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.032 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 2.1 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 2.1 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 17.5 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 17.5 | mg/L | 0.11 | SW846 6020A | # |
| Zinc, Dissolved | 0.023 | mg/L | 0.0056 | SW846 6020A | # |
| Zinc, Total | 0.022 | 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 | 9.7 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 8.9 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.39 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 252 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 53.6 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 184 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 0.83 | mg/L | 0.50 | SM5310B-14 | # |

# Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP033W | Collected | 05/06/2024 12:14 |
| Lab Sample ID | 3358324002 | Lab Receipt | 05/06/2024 14:55 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 18.52 | Feet | | Field | # |
| Dissolved Oxygen | 1.40 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 516.52 | Feet | | Field | # |
| Flow Rate | 1.91 | gal/min | | Field | # |
| Ground Water Elevation | 498.00 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | 154 | mV | | Field | # |
| pH, Field (SM4500B) | 5.44 | pH_Units | | Field | # |
| Sample Depth | 79.00 | Feet | | Field | # |
| Specific Conductance, Field | 600 | umhos/cm | 1 | Field | # |
| Temperature | 15.51 | Deg. C | | Field | # |
| Total Well Depth | 100.00 | Feet | | Field | # |
| Volume in Water Column | 119.78 | Gallons | | Field | # |
| Water Level After Purge | 36.59 | Feet | | Field | # |
| Well Volumes Purged | 2.15 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.067 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.068 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 33.1 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 33.2 | mg/L | 0.11 | SW846 6020A | # |
| Iron, Dissolved | 1.6 | mg/L | 0.056 | SW846 6020A | # |
| Iron, Total | 1.7 | mg/L | 0.056 | SW846 6020A | # |
| Magnesium, Dissolved | 12.6 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 12.8 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.18 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.19 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 1.8 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 1.8 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 19.1 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 19.2 | mg/L | 0.11 | SW846 6020A | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 27 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 27 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 83.3 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 10.9 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.56 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 435 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 12.6 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 358 | mg/L | 25 | SM2540C-15 | # |
| Turbidity | 4.0 | NTU | 0.30 | SM2130B-2011 | # |

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP034W | Collected | 05/06/2024 13:08 |
| Lab Sample ID | 3358324003 | Lab Receipt | 05/06/2024 14:55 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 10.16 | Feet | | Field | # |
| Dissolved Oxygen | 1.40 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 472.88 | Feet | | Field | # |
| Flow Rate | 1.66 | gal/min | | Field | # |
| Ground Water Elevation | 462.72 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | 167 | mV | | Field | # |
| pH, Field (SM4500B) | 5.79 | pH_Units | | Field | # |
| Sample Depth | 25.85 | Feet | | Field | # |
| Specific Conductance, Field | 843 | umhos/cm | 1 | Field | # |
| Temperature | 13.91 | Deg. C | | Field | # |
| Total Well Depth | 121.00 | Feet | | Field | # |
| Turbidity, Field | 4 | NTU | 1 | Field | # |
| Volume in Water Column | 162.93 | Gallons | | Field | # |
| Water Level After Purge | 19.27 | Feet | | Field | # |
| Well Volumes Purged | 1.02 | 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 | 0.055 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 54.0 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 54.6 | mg/L | 0.11 | SW846 6020A | # |
| Iron, Dissolved | 0.49 | mg/L | 0.056 | SW846 6020A | # |
| Iron, Total | 5.5 | mg/L | 0.056 | SW846 6020A | # |
| Magnesium, Dissolved | 21.2 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 21.6 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.13 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.13 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 2.9 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 3.0 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 43.1 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 43.5 | mg/L | 0.11 | SW846 6020A | # |
| Zinc, Total | 0.021 | mg/L | 0.0056 | SW846 6020A | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 41 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 41 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 168 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 10.6 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 7.02 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 748 | umhos/cm | 5 | SM2510B-2011 | # |
| Sulfate | 29.7 | mg/L | 2.0 | EPA 300.0 | # |
| Total Dissolved Solids | 512 | mg/L | 25 | SM2540C-15 | # |
| Total Organic Carbon (TOC) | 0.85 | mg/L | 0.50 | SM5310B-14 | # |
| Turbidity | 130 | NTU | 0.30 | SM2130B-2011 | # |

## Detected Results Summary

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP029W | Collected | 05/06/2024 13:24 |
| Lab Sample ID | 3358324004 | Lab Receipt | 05/06/2024 14:55 |

| Compound | Result | Units | RDL | Method | Flag |
|---|---|---|---|---|---|
| **FIELD PARAMETERS** | | | | | |
| Depth to Water Level | 37.89 | Feet | | Field | # |
| Dissolved Oxygen | 6.66 | mg/L | 0.01 | Field | # |
| Elev Top MW Casing above MSL | 477.30 | Feet | | Field | # |
| Flow Rate | 1.88 | gal/min | | Field | # |
| Ground Water Elevation | 439.41 | ft/MSL | | Field | # |
| Oxidation-Reduction Potential | 250 | mV | | Field | # |
| pH, Field (SM4500B) | 5.15 | pH_Units | | Field | # |
| Sample Depth | 55.00 | Feet | | Field | # |
| Specific Conductance, Field | 259 | umhos/cm | 1 | Field | # |
| Temperature | 14.92 | Deg. C | | Field | # |
| Total Well Depth | 60.50 | Feet | | Field | # |
| Volume in Water Column | 33.24 | Gallons | | Field | # |
| Water Level After Purge | 42.72 | Feet | | Field | # |
| Well Volumes Purged | 1.70 | Vol | | Field | # |
| **LIBRARY SEARCH - VOLATILES** | | | | | |
| No TIC's Detected | . | | | Lib Search VOC | # |
| **METALS** | | | | | |
| Barium, Dissolved | 0.057 | mg/L | 0.0056 | SW846 6020A | # |
| Barium, Total | 0.058 | mg/L | 0.0056 | SW846 6020A | # |
| Calcium, Dissolved | 7.9 | mg/L | 0.11 | SW846 6020A | # |
| Calcium, Total | 8.0 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Dissolved | 7.1 | mg/L | 0.11 | SW846 6020A | # |
| Magnesium, Total | 7.2 | mg/L | 0.11 | SW846 6020A | # |
| Manganese, Dissolved | 0.020 | mg/L | 0.0056 | SW846 6020A | # |
| Manganese, Total | 0.020 | mg/L | 0.0056 | SW846 6020A | # |
| Potassium, Dissolved | 1.6 | mg/L | 0.11 | SW846 6020A | # |
| Potassium, Total | 1.7 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Dissolved | 13.5 | mg/L | 0.11 | SW846 6020A | # |
| Sodium, Total | 13.5 | mg/L | 0.11 | SW846 6020A | # |
| **WET CHEMISTRY** | | | | | |
| Alkalinity, Bicarbonate | 8 | mg/L | 5 | SM2320B-2011 | # |
| Alkalinity, Total | 8 | mg/L | 5 | SM2320B-2011 | # |
| Chloride | 43.4 | mg/L | 2.0 | EPA 300.0 | # |
| Nitrate-N | 3.6 | mg/L | 1.0 | EPA 300.0 | # |
| pH | 6.39 | pH_Units | | S4500HB-11 | # |
| Specific Conductance | 193 | umhos/cm | 5 | SM2510B-2011 | # |
| Total Dissolved Solids | 141 | mg/L | 25 | SM2540C-15 | # |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP015W | Collected | 05/06/2024 10:57 |
| Lab Sample ID | 3358324001 | Lab Receipt | 05/06/2024 14:55 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 58.17 | | Feet | | Field | 1 | 05/06/2024 10:57 | BGS | H |
| Dissolved Oxygen | 8.24 | | mg/L | 0.01 | Field | 1 | 05/06/2024 10:57 | BGS | H |
| Elev Top MW Casing above MSL | 576.40 | | Feet | | Field | 1 | 05/06/2024 10:57 | BGS | H |
| Flow Rate | 1.82 | | gal/min | | Field | 1 | 05/06/2024 10:57 | BGS | H |
| Ground Water Elevation | 518.23 | | ft/MSL | | Field | 1 | 05/06/2024 10:57 | BGS | H |
| Oxidation-Reduction Potential | 288 | | mV | | Field | 1 | 05/06/2024 10:57 | BGS | H |
| pH, Field (SM4500B) | 5.38 | | pH_Units | | Field | 1 | 05/06/2024 10:57 | BGS | H |
| Sample Depth | 135.00 | | Feet | | Field | 1 | 05/06/2024 10:57 | BGS | H |
| Specific Conductance, Field | 288 | | umhos/cm | 1 | Field | 1 | 05/06/2024 10:57 | BGS | H |
| Temperature | 14.28 | | Deg. C | | Field | 1 | 05/06/2024 10:57 | BGS | H |
| Total Well Depth | 149.90 | | Feet | | Field | 1 | 05/06/2024 10:57 | BGS | H |
| Turbidity, Field | ND | ND | NTU | 1 | Field | 1 | 05/06/2024 10:57 | BGS | H |
| Volume in Water Column | 134.84 | | Gallons | | Field | 1 | 05/06/2024 10:57 | BGS | H |
| Water Level After Purge | 94.70 | | Feet | | Field | 1 | 05/06/2024 10:57 | BGS | H |
| Well Volumes Purged | 1.01 | | Vol | | Field | 1 | 05/06/2024 10:57 | 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 | 05/15/2024 04:33 | BST | 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 | 05/15/2024 10:49 | MO | F3 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/15/2024 11:59 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Barium, Dissolved | 0.043 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:59 | MO | D1 |
| Barium, Total | 0.045 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:59 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Calcium, Dissolved | 8.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:59 | MO | D1 |
| Calcium, Total | 8.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:59 | MO | D1 |
| Chromium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Cobalt, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:59 | MO | D1 |
| Copper, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Iron, Dissolved | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 11:59 | MO | D1 |
| Iron, Total | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:59 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Magnesium, Dissolved | 12.7 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:59 | MO | D1 |
| Magnesium, Total | 12.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Manganese, Dissolved | 0.031 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:59 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP015W | Collected | 05/06/2024 10:57 |
| Lab Sample ID | 3358324001 | Lab Receipt | 05/06/2024 14:55 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.032 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/08/2024 11:01 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/09/2024 11:31 | JSE | F |
| Nickel, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Potassium, Dissolved | 2.1 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:59 | MO | D1 |
| Potassium, Total | 2.1 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Selenium, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:59 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:59 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Sodium, Dissolved | 17.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:59 | MO | D1 |
| Sodium, Total | 17.5 | 3 | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Vanadium, Total | ND | ND,4 | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |
| Zinc, Dissolved | 0.023 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:59 | MO | D1 |
| Zinc, Total | 0.022 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:49 | MO | F3 |

## 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 | 05/15/2024 04:33 | BST | L |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Bromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP015W | Collected | 05/06/2024 10:57 |
| Lab Sample ID | 3358324001 | Lab Receipt | 05/06/2024 14:55 |

## 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 | 05/15/2024 04:33 | BST | L |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Chloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Iodomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Trichlorofluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:33 | BST | L |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 111% | 62 – 133 | 05/15/2024 04:33 | |
| 4-Bromofluorobenzene | 460-00-4 | 96.2% | 79 – 114 | 05/15/2024 04:33 | |
| Dibromofluoromethane | 1868-53-7 | 92.9% | 78 – 116 | 05/15/2024 04:33 | |
| Toluene-d8 | 2037-26-5 | 93.5% | 76 – 127 | 05/15/2024 04:33 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 14 | | mg/L | 5 | SM2320B-2011 | 1 | 05/08/2024 20:54 | KMV | A |
| Alkalinity, Total | 14 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/08/2024 20:54 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/07/2024 17:59 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/09/2024 12:30 | KMS | C |
| Chloride | 9.7 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/07/2024 14:05 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/07/2024 14:05 | J1W | A |
| Nitrate-N | 8.9 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/07/2024 14:05 | J1W | A |
| pH | 6.39 | 2 | pH_Units | | S4500HB-11 | 1 | 05/08/2024 20:54 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 10:15 | AKH | K |
| Specific Conductance | 252 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/07/2024 16:45 | BLP | A |
| Sulfate | 53.6 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/07/2024 14:05 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP015W | Collected | 05/06/2024 10:57 |
| Lab Sample ID | 3358324001 | Lab Receipt | 05/06/2024 14:55 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 184 | | mg/L | 25 | SM2540C-15 | 1 | 05/07/2024 16:45 | RAG | A |
| Total Organic Carbon (TOC) | 0.83 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/08/2024 03:04 | PAG | I |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 05/07/2024 11:17 | NPF | A |

# Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP033W | Collected | 05/06/2024 12:14 |
| Lab Sample ID | 3358324002 | Lab Receipt | 05/06/2024 14:55 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 18.52 | | Feet | | Field | 1 | 05/06/2024 12:14 | BGS | H |
| Dissolved Oxygen | 1.40 | | mg/L | 0.01 | Field | 1 | 05/06/2024 12:14 | BGS | H |
| Elev Top MW Casing above MSL | 516.52 | | Feet | | Field | 1 | 05/06/2024 12:14 | BGS | H |
| Flow Rate | 1.91 | | gal/min | | Field | 1 | 05/06/2024 12:14 | BGS | H |
| Ground Water Elevation | 498.00 | | ft/MSL | | Field | 1 | 05/06/2024 12:14 | BGS | H |
| Oxidation-Reduction Potential | 154 | | mV | | Field | 1 | 05/06/2024 12:14 | BGS | H |
| pH, Field (SM4500B) | 5.44 | | pH_Units | | Field | 1 | 05/06/2024 12:14 | BGS | H |
| Sample Depth | 79.00 | | Feet | | Field | 1 | 05/06/2024 12:14 | BGS | H |
| Specific Conductance, Field | 600 | | umhos/cm | 1 | Field | 1 | 05/06/2024 12:14 | BGS | H |
| Temperature | 15.51 | | Deg. C | | Field | 1 | 05/06/2024 12:14 | BGS | H |
| Total Well Depth | 100.00 | | Feet | | Field | 1 | 05/06/2024 12:14 | BGS | H |
| Turbidity, Field | ND | ND | NTU | 1 | Field | 1 | 05/06/2024 12:14 | BGS | H |
| Volume in Water Column | 119.78 | | Gallons | | Field | 1 | 05/06/2024 12:14 | BGS | H |
| Water Level After Purge | 36.59 | | Feet | | Field | 1 | 05/06/2024 12:14 | BGS | H |
| Well Volumes Purged | 2.15 | | Vol | | Field | 1 | 05/06/2024 12:14 | 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 | 05/15/2024 04:54 | BST | 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 | 05/15/2024 10:56 | MO | F3 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/15/2024 12:13 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Barium, Dissolved | 0.067 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:13 | MO | D1 |
| Barium, Total | 0.068 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 12:13 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Calcium, Dissolved | 33.1 | 3 | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:13 | MO | D1 |
| Calcium, Total | 33.2 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:13 | MO | D1 |
| Chromium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Cobalt, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:13 | MO | D1 |
| Copper, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Iron, Dissolved | 1.6 | | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 12:13 | MO | D1 |
| Iron, Total | 1.7 | | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:13 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Magnesium, Dissolved | 12.6 | 3 | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:13 | MO | D1 |
| Magnesium, Total | 12.8 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Manganese, Dissolved | 0.18 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:13 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP033W | Collected | 05/06/2024 12:14 |
| Lab Sample ID | 3358324002 | Lab Receipt | 05/06/2024 14:55 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.19 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/08/2024 11:02 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/09/2024 11:38 | JSE | F |
| Nickel, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Potassium, Dissolved | 1.8 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:13 | MO | D1 |
| Potassium, Total | 1.8 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Selenium, Dissolved | ND | ND,6 | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:13 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:13 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Sodium, Dissolved | 19.1 | 3 | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:13 | MO | D1 |
| Sodium, Total | 19.2 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Vanadium, Total | ND | ND,4 | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |
| Zinc, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:13 | MO | D1 |
| Zinc, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:56 | MO | F3 |

## 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 | 05/15/2024 04:54 | BST | L |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Bromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP033W | Collected | 05/06/2024 12:14 |
| Lab Sample ID | 3358324002 | Lab Receipt | 05/06/2024 14:55 |

## 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 | 05/15/2024 04:54 | BST | L |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Chloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Iodomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Trichlorofluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 04:54 | BST | L |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 111% | 62 – 133 | 05/15/2024 04:54 | |
| 4-Bromofluorobenzene | 460-00-4 | 96% | 79 – 114 | 05/15/2024 04:54 | |
| Dibromofluoromethane | 1868-53-7 | 93.2% | 78 – 116 | 05/15/2024 04:54 | |
| Toluene-d8 | 2037-26-5 | 93.4% | 76 – 127 | 05/15/2024 04:54 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 27 | | mg/L | 5 | SM2320B-2011 | 1 | 05/08/2024 21:06 | KMV | A |
| Alkalinity, Total | 27 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/08/2024 21:06 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/07/2024 18:02 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/09/2024 12:30 | KMS | C |
| Chloride | 83.3 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/07/2024 14:16 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/07/2024 14:16 | J1W | A |
| Nitrate-N | 10.9 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/07/2024 14:16 | J1W | A |
| pH | 6.56 | 2 | pH_Units | | S4500HB-11 | 1 | 05/08/2024 21:06 | KMV | A |
| Phenolics | ND | ND,5 | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 10:04 | AKH | K |
| Specific Conductance | 435 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/07/2024 16:45 | BLP | A |
| Sulfate | 12.6 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/07/2024 14:16 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP033W | Collected | 05/06/2024 12:14 |
| Lab Sample ID | 3358324002 | Lab Receipt | 05/06/2024 14:55 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 358 | | mg/L | 25 | SM2540C-15 | 1 | 05/07/2024 16:45 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-14 | 1 | 05/08/2024 03:04 | PAG | I |
| Turbidity | 4.0 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/07/2024 11:17 | NPF | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP034W | Collected | 05/06/2024 13:08 |
| Lab Sample ID | 3358324003 | Lab Receipt | 05/06/2024 14:55 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 10.16 | | Feet | | Field | 1 | 05/06/2024 13:08 | BGS | H |
| Dissolved Oxygen | 1.40 | | mg/L | 0.01 | Field | 1 | 05/06/2024 13:08 | BGS | H |
| Elev Top MW Casing above MSL | 472.88 | | Feet | | Field | 1 | 05/06/2024 13:08 | BGS | H |
| Flow Rate | 1.66 | | gal/min | | Field | 1 | 05/06/2024 13:08 | BGS | H |
| Ground Water Elevation | 462.72 | | ft/MSL | | Field | 1 | 05/06/2024 13:08 | BGS | H |
| Oxidation-Reduction Potential | 167 | | mV | | Field | 1 | 05/06/2024 13:08 | BGS | H |
| pH, Field (SM4500B) | 5.79 | | pH_Units | | Field | 1 | 05/06/2024 13:08 | BGS | H |
| Sample Depth | 25.85 | | Feet | | Field | 1 | 05/06/2024 13:08 | BGS | H |
| Specific Conductance, Field | 843 | | umhos/cm | 1 | Field | 1 | 05/06/2024 13:08 | BGS | H |
| Temperature | 13.91 | | Deg. C | | Field | 1 | 05/06/2024 13:08 | BGS | H |
| Total Well Depth | 121.00 | | Feet | | Field | 1 | 05/06/2024 13:08 | BGS | H |
| Turbidity, Field | 4 | | NTU | 1 | Field | 1 | 05/06/2024 13:08 | BGS | H |
| Volume in Water Column | 162.93 | | Gallons | | Field | 1 | 05/06/2024 13:08 | BGS | H |
| Water Level After Purge | 19.27 | | Feet | | Field | 1 | 05/06/2024 13:08 | BGS | H |
| Well Volumes Purged | 1.02 | | Vol | | Field | 1 | 05/06/2024 13:08 | 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 | 05/15/2024 05:14 | BST | 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 | 05/15/2024 10:58 | MO | F3 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/15/2024 12:19 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Barium, Dissolved | 0.053 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:19 | MO | D1 |
| Barium, Total | 0.055 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 12:19 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Calcium, Dissolved | 54.0 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:19 | MO | D1 |
| Calcium, Total | 54.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:19 | MO | D1 |
| Chromium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Cobalt, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:19 | MO | D1 |
| Copper, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Iron, Dissolved | 0.49 | | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 12:19 | MO | D1 |
| Iron, Total | 5.5 | | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:19 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Magnesium, Dissolved | 21.2 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:19 | MO | D1 |
| Magnesium, Total | 21.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Manganese, Dissolved | 0.13 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:19 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP034W | Collected | 05/06/2024 13:08 |
| Lab Sample ID | 3358324003 | Lab Receipt | 05/06/2024 14:55 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.13 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/08/2024 11:10 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/09/2024 11:39 | JSE | F |
| Nickel, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Potassium, Dissolved | 2.9 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:19 | MO | D1 |
| Potassium, Total | 3.0 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Selenium, Dissolved | ND | ND,6 | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:19 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:19 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Sodium, Dissolved | 43.1 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:19 | MO | D1 |
| Sodium, Total | 43.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Vanadium, Total | ND | ND,4 | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |
| Zinc, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:19 | MO | D1 |
| Zinc, Total | 0.021 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 10:58 | MO | F3 |

## 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 | 05/15/2024 05:14 | BST | L |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Bromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP034W | Collected | 05/06/2024 13:08 |
| Lab Sample ID | 3358324003 | Lab Receipt | 05/06/2024 14:55 |

## 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 | 05/15/2024 05:14 | BST | L |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Chloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Iodomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Trichlorofluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:14 | BST | L |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 113% | 62 – 133 | 05/15/2024 05:14 | |
| 4-Bromofluorobenzene | 460-00-4 | 92.8% | 79 – 114 | 05/15/2024 05:14 | |
| Dibromofluoromethane | 1868-53-7 | 94.3% | 78 – 116 | 05/15/2024 05:14 | |
| Toluene-d8 | 2037-26-5 | 94.2% | 76 – 127 | 05/15/2024 05:14 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 41 | | mg/L | 5 | SM2320B-2011 | 1 | 05/08/2024 21:18 | KMV | A |
| Alkalinity, Total | 41 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/08/2024 21:18 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/14/2024 11:46 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/09/2024 12:30 | KMS | C |
| Chloride | 168 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/07/2024 14:28 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/07/2024 14:28 | J1W | A |
| Nitrate-N | 10.6 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/07/2024 14:28 | J1W | A |
| pH | 7.02 | 2 | pH_Units | | S4500HB-11 | 1 | 05/08/2024 21:18 | KMV | A |
| Phenolics | ND | ND,7 | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 15:37 | AKH | K |
| Specific Conductance | 748 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/07/2024 16:45 | BLP | A |
| Sulfate | 29.7 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/07/2024 14:28 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP034W | Collected | 05/06/2024 13:08 |
| Lab Sample ID | 3358324003 | Lab Receipt | 05/06/2024 14:55 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 512 | | mg/L | 25 | SM2540C-15 | 1 | 05/07/2024 16:45 | RAG | A |
| Total Organic Carbon (TOC) | 0.85 | | mg/L | 0.50 | SM5310B-14 | 1 | 05/08/2024 03:04 | PAG | I |
| Turbidity | 130 | | NTU | 0.30 | SM2130B-2011 | 1 | 05/07/2024 11:17 | NPF | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP029W | Collected | 05/06/2024 13:24 |
| Lab Sample ID | 3358324004 | Lab Receipt | 05/06/2024 14:55 |

## FIELD PARAMETERS

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Depth to Water Level | 37.89 | | Feet | | Field | 1 | 05/06/2024 13:24 | BGS | H |
| Dissolved Oxygen | 6.66 | | mg/L | 0.01 | Field | 1 | 05/06/2024 13:24 | BGS | H |
| Elev Top MW Casing above MSL | 477.30 | | Feet | | Field | 1 | 05/06/2024 13:24 | BGS | H |
| Flow Rate | 1.88 | | gal/min | | Field | 1 | 05/06/2024 13:24 | BGS | H |
| Ground Water Elevation | 439.41 | | ft/MSL | | Field | 1 | 05/06/2024 13:24 | BGS | H |
| Oxidation-Reduction Potential | 250 | | mV | | Field | 1 | 05/06/2024 13:24 | BGS | H |
| pH, Field (SM4500B) | 5.15 | | pH_Units | | Field | 1 | 05/06/2024 13:24 | BGS | H |
| Sample Depth | 55.00 | | Feet | | Field | 1 | 05/06/2024 13:24 | BGS | H |
| Specific Conductance, Field | 259 | | umhos/cm | 1 | Field | 1 | 05/06/2024 13:24 | BGS | H |
| Temperature | 14.92 | | Deg. C | | Field | 1 | 05/06/2024 13:24 | BGS | H |
| Total Well Depth | 60.50 | | Feet | | Field | 1 | 05/06/2024 13:24 | BGS | H |
| Turbidity, Field | ND | ND | NTU | 1 | Field | 1 | 05/06/2024 13:24 | BGS | H |
| Volume in Water Column | 33.24 | | Gallons | | Field | 1 | 05/06/2024 13:24 | BGS | H |
| Water Level After Purge | 42.72 | | Feet | | Field | 1 | 05/06/2024 13:24 | BGS | H |
| Well Volumes Purged | 1.70 | | Vol | | Field | 1 | 05/06/2024 13:24 | 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 | 05/15/2024 05:34 | BST | 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 | 05/15/2024 11:00 | MO | F3 |
| Arsenic, Dissolved | ND | ND | mg/L | 0.0030 | SW846 6020A | 1 | 05/15/2024 12:21 | MO | D1 |
| Arsenic, Total | ND | ND | mg/L | 0.0033 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Barium, Dissolved | 0.057 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:21 | MO | D1 |
| Barium, Total | 0.058 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Beryllium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Cadmium, Dissolved | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 12:21 | MO | D1 |
| Cadmium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Calcium, Dissolved | 7.9 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:21 | MO | D1 |
| Calcium, Total | 8.0 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Chromium, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:21 | MO | D1 |
| Chromium, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Cobalt, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Copper, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:21 | MO | D1 |
| Copper, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Iron, Dissolved | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 12:21 | MO | D1 |
| Iron, Total | ND | ND | mg/L | 0.056 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Lead, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:21 | MO | D1 |
| Lead, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Magnesium, Dissolved | 7.1 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:21 | MO | D1 |
| Magnesium, Total | 7.2 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Manganese, Dissolved | 0.020 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:21 | MO | D1 |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP029W | Collected | 05/06/2024 13:24 |
| Lab Sample ID | 3358324004 | Lab Receipt | 05/06/2024 14:55 |

## METALS (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Manganese, Total | 0.020 | | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Mercury, Dissolved | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/08/2024 11:11 | JSE | D |
| Mercury, Total | ND | ND | mg/L | 0.00050 | SW846 7470A | 1 | 05/09/2024 11:40 | JSE | F |
| Nickel, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Potassium, Dissolved | 1.6 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:21 | MO | D1 |
| Potassium, Total | 1.7 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Selenium, Dissolved | ND | ND,6 | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:21 | MO | D1 |
| Selenium, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Silver, Dissolved | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 12:21 | MO | D1 |
| Silver, Total | ND | ND | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Sodium, Dissolved | 13.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 12:21 | MO | D1 |
| Sodium, Total | 13.5 | | mg/L | 0.11 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Thallium, Total | ND | ND | mg/L | 0.0011 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Vanadium, Total | ND | ND,4 | mg/L | 0.0022 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |
| Zinc, Dissolved | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 12:21 | MO | D1 |
| Zinc, Total | ND | ND | mg/L | 0.0056 | SW846 6020A | 1 | 05/15/2024 11:00 | MO | F3 |

## 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 | 05/15/2024 05:34 | BST | L |
| 1,1,1-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| 1,1,2,2-Tetrachloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| 1,1,2-Trichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| 1,1-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| 1,1-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| 1,2,3-Trichloropropane | ND | ND | ug/L | 2.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| 1,2-Dibromo-3-chloropropane | ND | ND | ug/L | 7.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| 1,2-Dibromoethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| 1,2-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| 1,2-Dichloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| 1,2-Dichloropropane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| 1,3-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| 1,4-Dichlorobenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| 2-Butanone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| 2-Hexanone | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| 3-Chloro-1-propene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| 4-Methyl-2-Pentanone(MIBK) | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Acetone | ND | ND | ug/L | 10.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Acrylonitrile | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Benzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Bromochloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Bromodichloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Bromoform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Bromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Carbon Disulfide | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Carbon Tetrachloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP029W | Collected | 05/06/2024 13:24 |
| Lab Sample ID | 3358324004 | Lab Receipt | 05/06/2024 14:55 |

## 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 | 05/15/2024 05:34 | BST | L |
| Chlorodibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Chloroethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Chloroform | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Chloromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| cis-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| cis-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Dibromomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Dichlorodifluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Ethylbenzene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Iodomethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Methylene Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Styrene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Tetrachloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Toluene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Total Xylenes | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| trans-1,2-Dichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| trans-1,3-Dichloropropene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| trans-1,4-Dichloro-2-butene | ND | ND | ug/L | 3.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Trichloroethene | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Trichlorofluoromethane | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Vinyl Acetate | ND | ND | ug/L | 5.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |
| Vinyl Chloride | ND | ND | ug/L | 1.0 | SW846 8260B | 1 | 05/15/2024 05:34 | BST | L |

*SURROGATES*

| Compound | CAS No | Recovery | Limits(%) | Analysis Date/Time | Qualifiers |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 17060-07-0 | 108% | 62 – 133 | 05/15/2024 05:34 | |
| 4-Bromofluorobenzene | 460-00-4 | 96.5% | 79 – 114 | 05/15/2024 05:34 | |
| Dibromofluoromethane | 1868-53-7 | 91.3% | 78 – 116 | 05/15/2024 05:34 | |
| Toluene-d8 | 2037-26-5 | 93.2% | 76 – 127 | 05/15/2024 05:34 | |

## WET CHEMISTRY

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Alkalinity, Bicarbonate | 8 | | mg/L | 5 | SM2320B-2011 | 1 | 05/08/2024 21:30 | KMV | A |
| Alkalinity, Total | 8 | 1 | mg/L | 5 | SM2320B-2011 | 1 | 05/08/2024 21:30 | KMV | A |
| Ammonia-N, Low Level | ND | ND | mg/L | 0.10 | SM 4500-NH3G | 1 | 05/07/2024 18:14 | NML | C |
| Chemical Oxygen Demand (COD) | ND | ND | mg/L | 15 | EPA 410.4 | 1 | 05/09/2024 12:30 | KMS | C |
| Chloride | 43.4 | | mg/L | 2.0 | EPA 300.0 | 2 | 05/07/2024 14:39 | J1W | A |
| Fluoride | ND | ND | mg/L | 0.20 | EPA 300.0 | 2 | 05/07/2024 14:39 | J1W | A |
| Nitrate-N | 3.6 | | mg/L | 1.0 | EPA 300.0 | 2 | 05/07/2024 14:39 | J1W | A |
| pH | 6.39 | 2 | pH_Units | | S4500HB-11 | 1 | 05/08/2024 21:30 | KMV | A |
| Phenolics | ND | ND | mg/L | 0.004 | SW846 9066 | 1 | 05/15/2024 11:36 | AKH | K |
| Specific Conductance | 193 | | umhos/cm | 5 | SM2510B-2011 | 1 | 05/07/2024 16:45 | BLP | A |
| Sulfate | ND | ND | mg/L | 2.0 | EPA 300.0 | 2 | 05/07/2024 14:39 | J1W | A |

## Results

| | | | |
|---|---|---|---|
| Client Sample ID | FFMP029W | Collected | 05/06/2024 13:24 |
| Lab Sample ID | 3358324004 | Lab Receipt | 05/06/2024 14:55 |

## WET CHEMISTRY (cont.)

| Compound | Result | Flag | Units | RDL | Method | Dilution | Analysis Date/Time | By | Cntr |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 141 | | mg/L | 25 | SM2540C-15 | 1 | 05/07/2024 16:45 | RAG | A |
| Total Organic Carbon (TOC) | ND | ND | mg/L | 0.50 | SM5310B-14 | 1 | 05/08/2024 03:04 | PAG | I |
| Turbidity | ND | ND | NTU | 0.30 | SM2130B-2011 | 1 | 05/07/2024 11:17 | NPF | A |

## Sample - Method Cross Reference Table

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3358324001 | FFMP015W | 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 | |
| 3358324002 | FFMP033W | 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 | |
| 3358324003 | FFMP034W | 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 | |

| Lab ID | Sample ID | Analysis Method | Preparation Method | Leachate Method |
|---|---|---|---|---|
| 3358324004 | FFMP029W | 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 |
|---|---|---|---|---|---|---|---|
| 3358324001 | FFMP015W | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1197405 | 05/08/2024 02:32 | ANN | SW846 6020A | 1202941 |
| | | SW846 3015A | 1197724 | 05/09/2024 02:35 | ANN | SW846 6020A | 1202946 |
| | | SW846 7470A | 1197578 | 05/08/2024 15:05 | JSE | SW846 7470A | 1198614 |
| | | SW846 7470A | 1197314 | 05/07/2024 15:20 | JSE | SW846 7470A | 1197599 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1205533 |
| | | N/A | N/A | N/A | | SW846 8260B | 1202481 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1197219 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1198310 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1197607 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1197045 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1197221 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1197607 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1197348 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1197259 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1197361 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |
| 3358324002 | FFMP033W | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1197405 | 05/08/2024 02:32 | ANN | SW846 6020A | 1202941 |
| | | SW846 3015A | 1197724 | 05/09/2024 02:35 | ANN | SW846 6020A | 1202946 |
| | | SW846 7470A | 1197578 | 05/08/2024 15:05 | JSE | SW846 7470A | 1198614 |
| | | SW846 7470A | 1197314 | 05/07/2024 15:20 | JSE | SW846 7470A | 1197599 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1205533 |
| | | N/A | N/A | N/A | | SW846 8260B | 1202481 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1197219 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1198310 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1197607 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1197045 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1197221 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1197607 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1197348 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1197259 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1197361 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |
| 3358324003 | FFMP034W | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1197405 | 05/08/2024 02:32 | ANN | SW846 6020A | 1202941 |
| | | SW846 3015A | 1197724 | 05/09/2024 02:35 | ANN | SW846 6020A | 1202946 |
| | | SW846 7470A | 1197578 | 05/08/2024 15:05 | JSE | SW846 7470A | 1198614 |
| | | SW846 7470A | 1197314 | 05/07/2024 15:20 | JSE | SW846 7470A | 1197599 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1205533 |
| | | N/A | N/A | N/A | | SW846 8260B | 1202481 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1197219 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1198310 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1197607 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1201010 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1197221 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1197607 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1197348 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1197259 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1197361 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |

| Lab ID | Sample ID | Preparation Method | Prep Batch | Prep Date/Time | By | Analysis Method | Anly Batch |
|---|---|---|---|---|---|---|---|
| 3358324004 | FFMP029W | N/A | N/A | N/A | | Field | 1201211 |
| | | SW846 3015A | 1197405 | 05/08/2024 02:32 | ANN | SW846 6020A | 1202941 |
| | | SW846 3015A | 1197724 | 05/09/2024 02:35 | ANN | SW846 6020A | 1202946 |
| | | SW846 7470A | 1197578 | 05/08/2024 15:05 | JSE | SW846 7470A | 1198614 |
| | | SW846 7470A | 1197314 | 05/07/2024 15:20 | JSE | SW846 7470A | 1197599 |
| | | N/A | N/A | N/A | | Lib Search VOC | 1205533 |
| | | N/A | N/A | N/A | | SW846 8260B | 1202481 |
| | | N/A | N/A | N/A | | EPA 300.0 | 1197219 |
| | | N/A | N/A | N/A | | EPA 410.4 | 1198310 |
| | | N/A | N/A | N/A | | S4500HB-11 | 1197607 |
| | | N/A | N/A | N/A | | SM 4500-NH3G | 1197045 |
| | | N/A | N/A | N/A | | SM2130B-2011 | 1197221 |
| | | N/A | N/A | N/A | | SM2320B-2011 | 1197607 |
| | | N/A | N/A | N/A | | SM2510B-2011 | 1197348 |
| | | N/A | N/A | N/A | | SM2540C-15 | 1197259 |
| | | N/A | N/A | N/A | | SM5310B-14 | 1197361 |
| | | SW846 9066 | 1202403 | 05/14/2024 07:49 | AKH | SW846 9066 | 1202906 |

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

# CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

3358324
Logged By: SLS
PM: SJB

7324 of

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

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

**Address:** 1299 Harrisburg Pike PO Box 4424
Lancaster PA 17604

**Contact:** Dan Brown
**Phone#:** 717-735-0193
**Project Name/#:** Frey Farm Annual
**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 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Container Size | 40ml | 125ml | 40ml | 1L | 500ml | | | 250ml | 125ml | 125ml |
| Preservative | HCL | H2SO4 | HCL | 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 | VOC (form 19A) +LS | pH, CL, SpC, F, SO4, NO3, Tb, TDS | Alkalinity, HCO3 | FM | Sample Debth for AUX Data | NH3-N, COD | Dis Metals Fe,Mn,Na,Ba,Cr,Cu, Pb,Mg,K,Zn,As,Cd,Se,Ag,Hg,Ca | Metals: Fe,Mn,Na,Ba,Cr,Cu, Pb,Mg,K,Zn,As,Cd,Se,Ag,Hg,Ca |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Enter Number of Containers Per Sample or Field Results Below. | | | | | | | | | |
| 1 | FFMP015W | 5/6/24 | 1057 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | +2 | +2 |
| 2 | FFMP033W | 5/6/24 | 1214 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | +2 | +2 |
| 3 | FFMP034W | 5/6/24 | 1308 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | +2 | +2 |
| 4 | FFMP029W | 5/6/24 | 1324 | | G | GW | 2 | 1 | 2 | 1 | 1 | x | x | 1 | +2 | +2 |
| 5 | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | LOC 5/6/24 | |
| 7 | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |

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

Comments:

| Date: | Time | | Relinquished By / Company Name | | Received By / Company Name |
|---|---|---|---|---|---|
| 5-6-24 | 1455 | 1 | [illegible] ALS | 2 | [illegible] ALS |
| | | 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

n (completed by Receiving Lab)
Temp Taken By: WDC Therm ID: 510 WO Temp (°C) 6.0c
Receipt Info completed by:_____ WV Containers 0-6°C Y N NA

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

NJ ≤ 4 days? Y N
Courier/Tracking #

Deviations? NO YES
If YES, llist below:

Client contact:
Date/Tech:

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

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

**Sample/COC Remarks**
1 bottle of each swapped labels, clear samples are filtered. WSTZH

**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

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

Rev 07.06.2023

3358324

| Temp By: | WO Temp (°C) | Therm ID |
|---|---|---|
| LDC | 6°c | 520 |

| | LDC |
|---|---|
| Receipt Info Completed By: | |
| 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 Headspace Present | Y N (NA) |
| Voa Trip Blank | Y (N) |
| NJ≤ 4 Days? | |
| Rad Screen (uCi) | |
| Courier/Tracking #: | |
| SDWA Compliance | Y (N) |
| PWSID | |
| WV Containers 0-6°C | Y N (NA) |