National Testing Laboratories, Ltd.
Quality Water Analysis

Corporate Headquarters
6571 Wilson Mills Road
Cleveland, Ohio 44143

Phone: 800-458-3330

This report package contains 47 pages.

This package contains reports from the following laboratories:

- National Testing Laboratories, Ltd. (7 pages)
- Pace Analytical Services, Inc.- Minneapolis, MN (7 pages)
- Pace Analytical Services, Inc.-Greensburg, PA (2 pages)
- EMSL Analytical, Inc. (1 page)
- Eurofins Eaton Analytical, Inc. (2 pages)
- Alpha Analytical (23 pages)
- NSF International (4 pages)

If you have any questions, please contact Susan Henderson at 1-800-458-3330.

Laboratory ID: NY:11467, PA:68-00362

**National Testing Laboratories, Ltd**
556 South Mansfield, Ypsilanti, MI, 48197-5166
(440) 449-2525, Fax: (440) 449-8585

## ANALYTICAL REPORTS

### SAMPLE CODE: 430032

### 5/3/2022

**Customer:** Creekside Springs-OH
James Sas
667 Merchant Street
Ambridge, PA 15003

**Source:** Hillside Spring, Columbiana Co., OH
**Source City:** Salineville
**Source State:** OH
**Sample Temperature:** 52.2 F
**Field pH:** 7.05
**PWS ID#:** 9996434

**Date/Time Received:** 3/30/2022 09:50
**Collected by:** B. Fazekas

The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Additional water received on 04/13/2022 at 09:38.

pH analysis has a 15 minute hold time from sampling to analysis. Analysis of pH past the 15 minute hold time should be considered an estimate. In addition, Chlorine, Chloramine and Chlorine Dioxide hold time is immediate, therefore results should be considered an estimate.

| Fed Id # | Contaminant | Method | Standard | Units | LRL | Level Detected | DF | Date/Time Sampled | Date Prepped | Date/Time Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Inorganic Analytes - Metals** | | | | | | |
| 1002 | Aluminum | 200.7 | 0.2 | mg/L | 0.05 | ND | 1 | 3/29/2022 13:50 | | 4/19/2022 |
| 1074 | Antimony | 200.8 | 0.006 | mg/L | 0.003 | ND | 1 | 3/29/2022 13:50 | | 4/3/2022 |
| 1005 | Arsenic | 200.8 | 0.010 | mg/L | 0.002 | ND | 1 | 3/29/2022 13:50 | | 4/3/2022 |
| 1010 | Barium | 200.7 | 2 | mg/L | 0.10 | ND | 1 | 3/29/2022 13:50 | | 4/19/2022 |
| 1075 | Beryllium | 200.7 | 0.004 | mg/L | 0.001 | ND | 1 | 3/29/2022 13:50 | | 4/19/2022 |
| 1079 | Boron | 200.7 | -- | mg/L | 0.10 | ND | 1 | 3/29/2022 13:50 | | 4/19/2022 |
| 1015 | Cadmium | 200.7 | 0.005 | mg/L | 0.001 | ND | 1 | 3/29/2022 13:50 | | 4/19/2022 |
| 1016 | Calcium | 200.7 | -- | mg/L | 2.0 | 39.0 | 1 | 3/29/2022 13:50 | | 4/19/2022 |
| 1020 | Chromium | 200.7 | 0.100 | mg/L | 0.007 | ND | 1 | 3/29/2022 13:50 | | 4/19/2022 |
| 1022 | Copper | 200.7 | 1.0 | mg/L | 0.002 | ND | 1 | 3/29/2022 13:50 | | 4/20/2022 |
| 1028 | Iron | 200.7 | 0.3 | mg/L | 0.020 | ND | 1 | 3/29/2022 13:50 | | 4/19/2022 |
| 1030 | Lead | 200.8 | 0.015 | mg/L | 0.001 | ND | 1 | 3/29/2022 13:50 | | 4/3/2022 |
| 1031 | Magnesium | 200.7 | -- | mg/L | 0.10 | 17.00 | 1 | 3/29/2022 13:50 | | 4/19/2022 |
| 1032 | Manganese | 200.7 | 0.05 | mg/L | 0.004 | 0.005 | 1 | 3/29/2022 13:50 | | 4/19/2022 |
| 1035 | Mercury | 200.8 | 0.002 | mg/L | 0.0002 | ND | 1 | 3/29/2022 13:50 | | 4/3/2022 |
| 1036 | Nickel | 200.7 | -- | mg/L | 0.005 | ND | 1 | 3/29/2022 13:50 | | 4/19/2022 |
| 1042 | Potassium | 200.7 | -- | mg/L | 1.0 | 2.5 | 1 | 3/29/2022 13:50 | | 4/19/2022 |

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(440) 449-2525, Fax: (440) 449-8585


## ANALYTICAL REPORTS

### SAMPLE CODE: 430032

### 5/3/2022

| Fed Id # | Contaminant | Method | Standard | Units | LRL | Level Detected | | DF | Date/Time Sampled | | Date Prepped | Date/Time Analyzed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1045 | Selenium | 200.8 | 0.05 | mg/L | 0.002 | ND | | 1 | 3/29/2022 | 13:50 | | 4/3/2022 | |
| 1049 | Silica | 200.7 | -- | mg/L | 0.05 | 6.90 | | 1 | 3/29/2022 | 13:50 | | 4/19/2022 | |
| 1050 | Silver | 200.7 | 0.10 | mg/L | 0.002 | ND | | 1 | 3/29/2022 | 13:50 | | 4/19/2022 | |
| 1052 | Sodium | 200.7 | -- | mg/L | 1 | 36 | | 1 | 3/29/2022 | 13:50 | | 4/19/2022 | |
| 1085 | Thallium | 200.8 | 0.002 | mg/L | 0.001 | ND | | 1 | 3/29/2022 | 13:50 | | 4/3/2022 | |
| 4009 | Uranium | 200.8 | 0.030 | mg/L | 0.001 | ND | | 1 | 3/29/2022 | 13:50 | | 4/3/2022 | |
| 1095 | Zinc | 200.7 | 5.000 | mg/L | 0.004 | ND | | 1 | 3/29/2022 | 13:50 | | 4/19/2022 | |
| | **Physical Factors** | | | | | | | | | | | | |
| 1927 | Alkalinity (Total as CaCO3) | 2320B | -- | mg/L | 20 | 98 | | 1 | 3/29/2022 | 13:50 | | 4/1/2022 | |
| 1905 | Apparent Color | 2120B | 15 | CU | 3 | ND | | 1 | 3/29/2022 | 13:50 | | 3/30/2022 | 14:00 |
| 1928 | Bicarbonate (as CaCO3) | 2320B | -- | mg/L | 20 | 98 | | 1 | 3/29/2022 | 13:50 | | 4/1/2022 | |
| 1929 | Carbonate (as CaCO3) | 2320B | -- | mg/L | 20 | ND | | 1 | 3/29/2022 | 13:50 | | 4/1/2022 | |
| 1910 | Corrosivity | 2330B | -- | SI | | -1.10 | R2 | 1 | 3/29/2022 | 13:50 | | 4/19/2022 | |
| 2905 | Foaming Agents | 5540C | 0.5 | mg/L | 0.1 | ND | | 1 | 3/29/2022 | 13:50 | | 3/30/2022 | 14:50 |
| | MBAS, calculated as Linear Alkylate Sulfonate (LAS), mol wt of 342.4 g/mole | | | | | | | | | | | | |
| 1915 | Hardness | 2340B | -- | mg/L | 5.0 | 170 | | 1 | 3/29/2022 | 13:50 | | 4/19/2022 | |
| 1021 | Hydroxide (as CaCO3) | 2320B | -- | mg/L | 20 | ND | | 1 | 3/29/2022 | 13:50 | | 4/1/2022 | |
| 1920 | Odor Threshold | 2150B | 3 | ton | 1 | ND | | 1 | 3/29/2022 | 13:50 | | 3/30/2022 | 12:00 |
| 1925 | pH | 150.1 | 6.5-8.5 | pH Units | | 6.8 | | 1 | 3/29/2022 | 13:50 | | 3/30/2022 | 12:30 |
| 4254 | pH Temperature | 150.1 | -- | Deg, C | | 25 | | 1 | 3/29/2022 | 13:50 | | 3/30/2022 | 12:30 |
| 1064 | Specific Cond. @ 25 deg. C | 2510B | -- | umhos/cm | 1 | 530 | | 1 | 3/29/2022 | 13:50 | | 4/1/2022 | |
| 1930 | Total Dissolved Solids | 2540C | 500 | mg/L | 5 | 340 | | 1 | 3/29/2022 | 13:50 | | 4/2/2022 | |
| 0100 | Turbidity | 2130B | 1 | NTU | 0.1 | ND | | 1 | 3/29/2022 | 13:50 | | 3/30/2022 | 13:15 |
| | **Inorganic Analytes - Other** | | | | | | | | | | | | |
| 1011 | Bromate | 300.1 | 0.010 | mg/L | 0.005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/5/2022 | |
| 1004 | Bromide | 300.1 | -- | mg/L | 0.005 | 0.009 | | 1 | 3/29/2022 | 13:50 | | 4/5/2022 | |
| 1006 | Chloramine as Cl2 | 4500Cl-G | 4.0 | mg/L | 0.05 | ND | | 1 | 3/29/2022 | 13:50 | | 4/19/2022 | 15:05 |
| 1017 | Chloride | 300.0 | 250 | mg/L | 1.0 | 8.0 | | 1 | 3/29/2022 | 13:50 | | 3/31/2022 | 12:22 |
| 1012 | Chlorine as Cl2 | 4500Cl-G | 4.0 | mg/L | 0.05 | ND | | 1 | 3/29/2022 | 13:50 | | 4/19/2022 | 15:01 |
| 1008 | Chlorine Dioxide as Cl02 | 4500Cl02D | 0.8 | mg/L | 0.1 | ND | | 1 | 3/29/2022 | 13:50 | | 4/19/2022 | 15:22 |
| 1009 | Chlorite | 300.1 | 1.0 | mg/L | 0.005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/5/2022 | |
| 1025 | Fluoride | 300.0 | 4.0 | mg/L | 0.10 | 0.21 | | 1 | 3/29/2022 | 13:50 | | 3/31/2022 | 12:22 |
| 1040 | Nitrate as N | 300.0 | 10 | mg/L | 0.05 | 0.31 | | 1 | 3/29/2022 | 13:50 | | 3/31/2022 | 12:22 |
| 1041 | Nitrite as N | 300.0 | 1 | mg/L | 0.05 | ND | | 1 | 3/29/2022 | 13:50 | | 3/31/2022 | 12:22 |
| 1044 | Ortho Phosphate | 300.0 | -- | mg/L | 2.0 | ND | | 1 | 3/29/2022 | 13:50 | | 3/31/2022 | 12:22 |
| 1055 | Sulfate | 300.0 | 250 | mg/L | 50.0 | 160.0 | | 10 | 3/29/2022 | 13:50 | | 3/31/2022 | 13:31 |
| | **Organic Analytes - Trihalomethanes** | | | | | | | | | | | | |
| 2943 | Bromodichloromethane | 524.2 THMs | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 | |
| 2942 | Bromoform | 524.2 THMs | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 | |

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### 5/3/2022

| Fed Id # | Contaminant | Method | Standard | Units | LRL | Level Detected | DF | Date/Time Sampled | | Date Prepped | Date/Time Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2941 | Chloroform | 524.2 THMs | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2944 | Dibromochloromethane | 524.2 THMs | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2950 | Total THMs | 524.2 THMs | 0.080 | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| | **Organic Analytes - Haloacetic Acids** | | | | | | | | | | |
| 2454 | Dibromoacetic Acid | 552.2 HAAs | -- | ug/L | 1.0 | ND | 1 | 3/29/2022 | 13:50 | 4/5/2022 | 4/11/2022 |
| 2451 | Dichloroacetic Acid | 552.2 HAAs | -- | ug/L | 1.0 | ND | 1 | 3/29/2022 | 13:50 | 4/5/2022 | 4/11/2022 |
| 2453 | Monobromoacetic Acid | 552.2 HAAs | -- | ug/L | 1.0 | ND | 1 | 3/29/2022 | 13:50 | 4/5/2022 | 4/11/2022 |
| 2450 | Monochloroacetic Acid | 552.2 HAAs | -- | ug/L | 1.0 | ND | 1 | 3/29/2022 | 13:50 | 4/5/2022 | 4/11/2022 |
| 2452 | Trichloroacetic Acid | 552.2 HAAs | -- | ug/L | 1.0 | ND | 1 | 3/29/2022 | 13:50 | 4/5/2022 | 4/11/2022 |
| 2456 | Total HAAs | 552.2 HAAs | 60 | ug/L | 1.0 | ND | 1 | 3/29/2022 | 13:50 | 4/5/2022 | 4/11/2022 |
| | **Organic Analytes - Volatiles** | | | | | | | | | | |
| 2986 | 1,1,1,2-Tetrachloroethane | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2981 | 1,1,1-Trichloroethane | 524.2 | 0.2 | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2988 | 1,1,2,2-Tetrachloroethane | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2985 | 1,1,2-Trichloroethane | 524.2 | 0.005 | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2978 | 1,1-Dichloroethane | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2977 | 1,1-Dichloroethene | 524.2 | 0.007 | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2410 | 1,1-Dichloropropene | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2420 | 1,2,3-Trichlorobenzene | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2414 | 1,2,3-Trichloropropane | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2378 | 1,2,4-Trichlorobenzene | 524.2 | 0.07 | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2418 | 1,2,4-Trimethylbenzene | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2968 | 1,2-Dichlorobenzene | 524.2 | 0.6 | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2980 | 1,2-Dichloroethane | 524.2 | 0.005 | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2983 | 1,2-Dichloropropane | 524.2 | 0.005 | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2424 | 1,3,5-Trimethylbenzene | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2967 | 1,3-Dichlorobenzene | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2412 | 1,3-Dichloropropane | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2969 | 1,4-Dichlorobenzene | 524.2 | 0.075 | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2416 | 2,2-Dichloropropane | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2965 | 2-Chlorotoluene | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2966 | 4-Chlorotoluene | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2030 | 4-Isopropyltoluene | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2990 | Benzene | 524.2 | 0.005 | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2993 | Bromobenzene | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2430 | Bromochloromethane | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2214 | Bromomethane | 524.2 | -- | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2982 | Carbon Tetrachloride | 524.2 | 0.005 | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2989 | Chlorobenzene | 524.2 | 0.1 | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |

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## ANALYTICAL REPORTS

### SAMPLE CODE: 430032

### 5/3/2022

| Fed Id # | Contaminant | Method | Standard | Units | LRL | Level Detected | | DF | Date/Time Sampled | | Date Prepped | Date/Time Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2216 | Chloroethane | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2210 | Chloromethane | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2380 | cis-1,2-Dichloroethene | 524.2 | 0.07 | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2228 | cis-1,3-Dichloropropene | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2408 | Dibromomethane | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2212 | Dichlorodifluoromethane | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2964 | Dichloromethane | 524.2 | 0.005 | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2992 | Ethylbenzene | 524.2 | 0.7 | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2246 | Hexachlorobutadiene | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2994 | Isopropylbenzene | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2251 | Methyl Tert Butyl Ether | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2247 | Methyl-Ethyl Ketone | 524.2 | -- | mg/L | 0.005 | ND | R2 | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2248 | Naphthalene | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2422 | n-Butylbenzene | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2997 | o-Xylene | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2963 | p and m-Xylenes | 524.2 | -- | mg/L | 0.0010 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| | Due to the limitation of EPA Method 524.2, p and m isomers of Xylene are reported as aggregate. | | | | | | | | | | | |
| 2998 | Propylbenzene | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2428 | sec-Butylbenzene | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2996 | Styrene | 524.2 | 0.1 | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2426 | tert-Butylbenzene | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2987 | Tetrachloroethene | 524.2 | 0.005 | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2991 | Toluene | 524.2 | 1 | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2979 | trans-1,2-Dichloroethene | 524.2 | 0.1 | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2224 | trans-1,3-Dichloropropene | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2984 | Trichloroethene | 524.2 | 0.005 | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2218 | Trichlorofluoromethane | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2904 | Trichlorotrifluoroethane | 524.2 | -- | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2976 | Vinyl Chloride | 524.2 | 0.002 | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| 2955 | Xylenes (Total) | 524.2 | 10 | mg/L | 0.0005 | ND | | 1 | 3/29/2022 | 13:50 | | 4/11/2022 |
| | **Organic Analytes - Others** | | | | | | | | | | | |
| 2931 | 1,2-Dibromo-3-chloropropane | 504.1 | 0.0002 | mg/L | 0.00001 | ND | | 1 | 3/29/2022 | 13:50 | 4/8/2022 | 4/8/2022 |
| 2946 | 1,2-Dibromoethane | 504.1 | 0.00005 | mg/L | 0.00001 | ND | | 1 | 3/29/2022 | 13:50 | 4/8/2022 | 4/8/2022 |
| 2105 | 2,4-D | 515.4 | 70 | ug/L | 0.1 | ND | | 1 | 3/29/2022 | 13:50 | 3/31/2022 | 4/6/2022 |
| 2066 | 3-Hydroxycarbofuran | 531.2 | -- | ug/L | 1.0 | ND | | 1 | 3/29/2022 | 13:50 | | 4/2/2022 |
| 2051 | Alachlor | 525.2 | 2 | ug/L | 0.2 | ND | | 1 | 3/29/2022 | 13:50 | 4/7/2022 | 4/26/2022 |
| 2047 | Aldicarb | 531.2 | 7 | ug/L | 1.0 | ND | | 1 | 3/29/2022 | 13:50 | | 4/2/2022 |
| 2044 | Aldicarb sulfone | 531.2 | 7 | ug/L | 1.0 | ND | | 1 | 3/29/2022 | 13:50 | | 4/2/2022 |
| 2043 | Aldicarb sulfoxide | 531.2 | 7 | ug/L | 1.0 | ND | | 1 | 3/29/2022 | 13:50 | | 4/2/2022 |
| 2356 | Aldrin | 505 | -- | mg/L | 0.00007 | ND | | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/4/2022 |
| 2050 | Atrazine | 525.2 | 3 | ug/L | 0.1 | ND | | 1 | 3/29/2022 | 13:50 | 4/7/2022 | 4/26/2022 |

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### SAMPLE CODE: 430032

### 5/3/2022

| Fed Id # | Contaminant | Method | Standard | Units | LRL | Level Detected | DF | Date/Time Sampled | | Date Prepped | Date/Time Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2625 | Bentazon | 515.4 | -- | ug/L | 1 | ND | 1 | 3/29/2022 | 13:50 | 3/31/2022 | 4/6/2022 |
| 2306 | Benzo(A)pyrene | 525.2 | 0.2 | ug/L | 0.1 | ND | 1 | 3/29/2022 | 13:50 | 4/7/2022 | 4/26/2022 |
| 2076 | Butachlor | 525.2 | -- | ug/L | 0.2 | ND | 1 | 3/29/2022 | 13:50 | 4/7/2022 | 4/26/2022 |
| 2021 | Carbaryl | 531.2 | -- | ug/L | 1.0 | ND | 1 | 3/29/2022 | 13:50 | | 4/2/2022 |
| 2046 | Carbofuran | 531.2 | 40 | ug/L | 1.0 | ND | 1 | 3/29/2022 | 13:50 | | 4/2/2022 |
| 2959 | Chlordane | 505 | 0.002 | mg/L | 0.0001 | ND | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/4/2022 |
| 2031 | Dalapon | 515.4 | 200 | ug/L | 1 | ND | 1 | 3/29/2022 | 13:50 | 3/31/2022 | 4/6/2022 |
| 2035 | Di(2-ethylhexyl) adipate | 525.2 | 400 | ug/L | 0.2 | ND | 1 | 3/29/2022 | 13:50 | 4/7/2022 | 4/26/2022 |
| 2039 | Di(2-ethylhexyl) phthalate | 525.2 | 6 | ug/L | 0.6 | ND | 1 | 3/29/2022 | 13:50 | 4/7/2022 | 4/26/2022 |
| 2440 | Dicamba | 515.4 | -- | ug/L | 1 | ND | 1 | 3/29/2022 | 13:50 | 3/31/2022 | 4/6/2022 |
| 2933 | Dichloran | 505 | -- | mg/L | 0.001 | ND | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/4/2022 |
| 2070 | Dieldrin | 505 | -- | mg/L | 0.00002 | ND | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/4/2022 |
| 2041 | Dinoseb | 515.4 | 7 | ug/L | 0.2 | ND | 1 | 3/29/2022 | 13:50 | 3/31/2022 | 4/6/2022 |
| 2032 | Diquat | 549.2 | 20 | ug/L | 0.4 | ND | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/7/2022 |
| 2033 | Endothall | 548.1 | 100 | ug/L | 9 | ND | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/13/2022 |
| 2005 | Endrin | 505 | 0.002 | mg/L | 0.00001 | ND | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/4/2022 |
| 2034 | Glyphosate | 547 | 700 | ug/L | 6 | ND | 1 | 3/29/2022 | 13:50 | | 4/4/2022 |
| 2065 | Heptachlor | 505 | 0.0004 | mg/L | 0.00001 | ND | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/4/2022 |
| 2067 | Heptachlor Epoxide | 505 | 0.0002 | mg/L | 0.00001 | ND | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/4/2022 |
| 2274 | Hexachlorobenzene | 505 | 0.001 | mg/L | 0.0001 | ND | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/4/2022 |
| 2042 | Hexachlorocyclopentadiene | 505 | 0.05 | mg/L | 0.0001 | ND | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/4/2022 |
| 2010 | Lindane | 505 | 0.0002 | mg/L | 0.00002 | ND | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/4/2022 |
| 2022 | Methomyl | 531.2 | -- | ug/L | 1.0 | ND | 1 | 3/29/2022 | 13:50 | | 4/2/2022 |
| 2015 | Methoxychlor | 505 | 0.04 | mg/L | 0.0001 | ND | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/4/2022 |
| 2045 | Metolachlor | 525.2 | -- | ug/L | 0.2 | ND | 1 | 3/29/2022 | 13:50 | 4/7/2022 | 4/26/2022 |
| 2595 | Metribuzin | 525.2 | -- | ug/L | 0.2 | ND | 1 | 3/29/2022 | 13:50 | 4/7/2022 | 4/26/2022 |
| 2626 | Molinate | 525.2 | -- | ug/L | 0.2 | ND | 1 | 3/29/2022 | 13:50 | 4/7/2022 | 4/26/2022 |
| 2036 | Oxamyl | 531.2 | 200 | ug/L | 1.0 | ND | 1 | 3/29/2022 | 13:50 | | 4/2/2022 |
| 2934 | Pentachloronitrobenzene | 505 | -- | mg/L | 0.0001 | ND | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/4/2022 |
| 2326 | Pentachlorophenol | 515.4 | 1 | ug/L | 0.04 | ND | 1 | 3/29/2022 | 13:50 | 3/31/2022 | 4/6/2022 |
| 2040 | Picloram | 515.4 | 500 | ug/L | 0.1 | ND | 1 | 3/29/2022 | 13:50 | 3/31/2022 | 4/6/2022 |
| 2077 | Propachlor | 525.2 | -- | ug/L | 0.2 | ND | 1 | 3/29/2022 | 13:50 | 4/7/2022 | 4/26/2022 |
| 2110 | Silvex 2,4,5-TP | 515.4 | 50 | ug/L | 0.2 | ND | 1 | 3/29/2022 | 13:50 | 3/31/2022 | 4/6/2022 |
| 2037 | Simazine | 525.2 | 4 | ug/L | 0.1 | ND | 1 | 3/29/2022 | 13:50 | 4/7/2022 | 4/26/2022 |
| 2627 | Thiobencarb | 525.2 | -- | ug/L | 0.2 | ND | 1 | 3/29/2022 | 13:50 | 4/7/2022 | 4/26/2022 |
| 2383 | Total PCBs | 505 | 0.0005 | mg/L | 0.0005 | ND | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/4/2022 |
| 2020 | Toxaphene | 505 | 0.003 | mg/L | 0.001 | ND | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/4/2022 |
| 2055 | Trifluralin | 505 | -- | mg/L | 0.001 | ND | 1 | 3/29/2022 | 13:50 | 4/4/2022 | 4/4/2022 |

Qualifiers:

R2: The laboratory is not licensed for this parameter. The reported result cannot be used for compliance purposes.

# National Testing Laboratories, Ltd

556 South Mansfield, Ypsilanti, MI, 48197-5166
(440) 449-2525, Fax: (440) 449-8585


## ANALYTICAL REPORTS

**SAMPLE CODE: 430032**

**5/3/2022**

| Fed Id # | Contaminant | Method | Standard | Units | LRL | Level Detected | DF | Date/Time Sampled | Date Prepped | Date/Time Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|

Christine MacMillan, Technical Director

| Analyst | Tests |
|---|---|
| ZSC | 200.7,2330B,2340B |
| DMJ | 200.8 |
| SP | 2320B,2120B,2150B,150.1,2510B,2130B |
| JF | 5540C |
| CF | 2540C |
| SG | 300.1,300.0 |
| BNF | 4500Cl-G,4500Cl02D |
| SB | 524.2 THMs,524.2,531.2,549.2,547 |
| RV | 552.2 HAAs,504.1,515.4,505 |
| JLF | 525.2,548.1 |

Laboratory ID: NY:11467, PA:68-00362

**National Testing Laboratories, Ltd**
556 South Mansfield, Ypsilanti, MI, 48197-5166
(440) 449-2525, Fax: (440) 449-8585

## ANALYTICAL REPORTS

**SAMPLE CODE: 430031**

**5/3/2022**

**Customer:** Creekside Springs-OH
James Sas
667 Merchant Street
Ambridge, PA 15003

**Source:** Hillside Spring, Columbiana Co., OH
**Source City:** Salineville
**Source State:** OH
**Sample Temperature:** 52.2 F
**Field pH:** 7.05
**PWS ID#:** 9996434

**Date/Time Received:** 3/30/2022 09:50
**Collected by:** B. Fazekas

The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

| Fed Id # | Contaminant | Method | Standard | Units | LRL | Level Detected | DF | Date/Time Sampled | Date Prepped | Date/Time Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Microbiologicals** | | | | | | |
| 3114 | E. Coli | 9223B | 1 | MPN/100 mL | 1 | ND | 1 | 3/29/2022 13:50 | | 3/30/2022 12:50 |
| 3001 | Standard Plate Count | 9215B | 500 | CFU/ml | 1 | <1 | 1 | 3/29/2022 13:50 | | 3/30/2022 12:37 |
| | | | | Pour Plate Method, 35°C/48hr, Plate Count Agar | | | | | | |
| 3000 | Total Coliform | 9223B | 1 | MPN/100 mL | 1 | ND | 1 | 3/29/2022 13:50 | | 3/30/2022 12:50 |

| Analyst | Tests |
|---|---|
| GK | 9223B |
| CF | 9215B |

Megan Gregg

Megan Gregg, Quality System Manager

Pace Analytical™
www.pacelabs.com

**Pace Analytical Services, LLC.**
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

**Report Prepared for:**

Susan Henderson
National Testing Laboratories
6571 Wilson Mills Road
Cleveland OH 44143

# REPORT OF LABORATORY ANALYSIS FOR 2,3,7,8-TCDD

**Report Summary:**

Enclosed are analytical results of one drinking water sample analyzed for 2,3,7,8-TCDD content. This sample was analyzed according to Method 1613B by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

The results reported for this sample and the associated quality control samples were all within the criteria described in Method 1613B. If you have any questions or concerns regarding these results, please contact Joanne Richardson, your Pace Project Manager.

**Pace Project Number:**
10604793

**Report Prepared Date:**
April 25, 2022

**Product Source**

Sample ID: 430032-A
Source Name: Hillside Spring, Columbia Co
Source Location: Salineville, OH
PWS ID: 9996434
Laboratory Sample ID: 10604793001
Date Sampled: 04/12/2022 @ 14:25
Date Received: 04/15/2022 @ 10:20

**This report has been reviewed by:**

Joanne Richardson

April 25, 2022
Joanne Richardson,
(612) 607-6453
(612) 607-6444 (fax)

NELAP ACCREDITED TNI LABORATORY

**Report of Laboratory Analysis**

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

# Minnesota Laboratory Certifications

| Authority | Certificate # | Authority | Certificate # |
|---|---|---|---|
| | | Missouri | 10100 |
| A2LA | 2926.01 | Montana | CERT0092 |
| Alabama | 40770 | Nebraska | NE-OS-18-06 |
| Alaska-DW | MN00064 | Nevada | MN00064 |
| Alaska-UST | 17-009 | New Hampshire | 2081 |
| Arizona | AZ0014 | New Jersey | MN002 |
| Arkansas - WW | 88-0680 | New York | 11647 |
| Arkansas-DW | MN00064 | North Carolina- | 27700 |
| California | 2929 | North Carolina- | 530 |
| Colorado | MN00064 | North Dakota | R-036 |
| Connecticut | PH-0256 | Ohio-DW | 41244 |
| Florida | E87605 | Ohio-VAP (170 | CL101 |
| Georgia | 959 | Ohio-VAP (180 | CL110 |
| Hawaii | MN00064 | Oklahoma | 9507 |
| Idaho | MN00064 | Oregon- rimary | MN300001 |
| Illinois | 200011 | Oregon-Second | MN200001 |
| Indiana | C-MN-01 | Pennsylvania | 68-00563 |
| Iowa | 368 | Puerto Rico | MN00064 |
| Kansas | E-10167 | South Carolina | 74003 |
| Kentucky-DW | 90062 | Tennessee | TN02818 |
| Kentucky-WW | 90062 | Texas | T104704192 |
| Louisiana-DEQ | AI-84596 | Utah | MN00064 |
| Louisiana-DW | MN00064 | Vermont | VT-027053137 |
| Maine | MN00064 | Virginia | 460163 |
| Maryland | 322 | Washington | C486 |
| Michigan | 9909 | West Virginia-D | 382 |
| Minnesota | 027-053-137 | West Virginia-D | 9952C |
| Minnesota-Ag | via MN 027-053 | Wisconsin | 999407970 |
| Minnesota-Petr | 1240 | Wyoming-UST | via A2LA 2926. |
| Mississippi | MN00064 | | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

# Reporting Flags

A = Reporting Limit based on signal to noise (EDL)

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Interferencepresent

J = Estimated value

L = Suppressive interference, analyte may be biased low

Nn = Value obtained from additional analysis

P = PCDEInterference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = SeeDiscussion

**REPORT OF LABORATORY ANALYSIS**

Report No.....10604793_1613DW_DFR

**National Testing Laboratories, Ltd.**
*Quality Water Analysis*

# CHAIN OF CUSTODY



**Initiated by:** ☐ Client ☑ National Testing Laboratories, Ltd. ☐ Other

CLIENT/COMPANY NAME:

CLIENT COMMENTS:

TYPES OF SAMPLES:

DRINKING WATER = D SOIL SAMPLE = S
GROUND WATER = G SLUDGE/WASTE = W
POOL WATER = P OTHER TYPE = O

**WO# : 10604793**

10604793

| SAMPLE # | COLLECTION DATE | COLLECTION TIME | SAMPLE SITE DESCRIPTION | SAMPLE TYPE | # OF CONTAINERS | TEST(S) REQUESTED PER SAMPLE (X) | LAB # |
|---|---|---|---|---|---|---|---|
| 430502 | 4/13/22 | 1440 | 2188032 | D | 2 | X | |
| 430032-A | 4/12/22 | 1425 | 2188034 | D | 2 | X | |

RECEIVER SIGNATURE CONFIRMS THAT THE BOTTLES RECEIVED ARE CONSISTENT WITH THE REQUIRED TESTING PROTOCOL.

| | | | | | |
|---|---|---|---|---|---|
| SAMPLED BY: (Signature) (1) | DATE | TIME | RELINQUISHED BY: (Signature) (4) | DATE | TIME |
| SHIPPED BY: (Signature) (2) Rupert | DATE 4/14/22 | TIME 1600 | RECEIVED BY: (Signature) (5) | DATE 04/15/22 | TIME 10:20 |
| RECEIVED BY: (Signature) (3) | DATE | TIME | RELINQUISHED BY: (Signature) (6) | DATE | TIME |
| | | | RECEIVED BY: (Signature) (7) | DATE | TIME |

LABORATORY COMMENTS:



COC-001 2/22/11

**See instructions on reverse side →**

National Testing Laboratories, Ltd.

Quality Water Analysis

1-800-458-3330

# Beverage - Source Water

Order Number: 2188034
Order Date: 3/7/2022 430032 -A
Sample Number:
Product: FDABASE GDRX

**Paid:** No **Method:** No Charge Order **P.O.:** Ambridge, PA

**TSR:** SBW

Ambridge PA 15003

**Date Sampled:** 4/12/22
**Time Sampled:** 14:25 Please Use Military Time, e.g. 3:00pm = 15:00
Check Time Zone: [X] EST [ ] CST [ ] MST [ ] PST

## Source Water Information:

**PWS ID# (if applicable):** 9996434
**Source Name:** Hillside Spring, Columbia Co., OH
**City & State:** Salineville OH
(If Different than Above)
**Sample Collected By:** [signature]
(Signature)
**Sample Collected By:** Brooke Fazekas
(Please Print)
**Sample Temperature:** 53.4°F **Field pH:** 7.04
**Measured at Source By:** BFazekas
**Form Completed By:** BFazekas
**Additional Comments:**

**For Laboratory Use ONLY**

**Lab Accounting Information:**
**Payment $:**
**Check #:**

**Lab Comments/Special Instructions:**
2022 Hillside Source
Dioxin Resample

**State Forms:**
NY

**Lab Sample Information:**
**Date Received:** 4/13/22
**Time Received:** 09:38
**Received By:** CB
[X] Sample receipt criteria checked & acceptable.
[ ] Deviations from acceptable sample receipt criteria noted on PSA form.

Rev: SRT102120 **INCOMPLETE INFORMATION MAY DELAY ANALYSIS AND/OR INVALIDATE RESULTS**

| Pace | DC#_Title: ENV-FRM-MIN4-0150 v05_Sample Condition Upon Receipt (SCUR) |
|---|---|
| | Effective Date: 04/12/2022 |

**Sample Condition Upon Receipt**

Client Name: National Testing Lab.

Project #:

**WO#: 10604793**

**PM: JMR** **Due Date: 04/26/22**

**CLIENT: NTL**

Courier: ☐ Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial

See Exceptions ☐ ENV-FRM-MIN4-0142

Tracking Number: 1Z A10 931 01 7391 1021

Custody Seal on Cooler/Box Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☑ No Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other: Temp Blank? ☑ Yes ☐ No

Thermometer: ☐ T1(0461) ☐ T2(1386) ☐ T3(0459) ☑ T4(0254) ☐ T5(0489) ☐ T6(0235) ☐ T7 (0042) ☐ 01339252/1710 ☐ 122639816 ☐ 140792808

Type of Ice: ☑ Wet ☐ Blue ☐ None ☐ Dry ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☑ No Were All Container Temps Taken? ☐ Yes ☐ No ☐ N/A

Temp should be above freezing to 6°C Cooler Temp Read w/temp blank: 0.5 °C

Average Corrected Temp (no temp blank only): °C ☐ See Exceptions ENV-FRM-MIN4-0142 ☐ 1 Container

Correction Factor: True Cooler Temp Corrected w/temp blank: 0.5 °C

USDA Regulated Soil: ( ☑ N/A, water sample/Other: ) Date/Initials of Person Examining Contents: KN 04/15/22

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

**If Yes to either question, fill out a Regulated Soil Checklist ENV-FRM-MIN4-0154 and include with SCUR/COC paperwork.**

| Location (check one): ☐ Duluth ☑ Minneapolis ☑ Virginia | | | | COMMENTS: |
|---|---|---|---|---|
| Chain of Custody Present and Filled Out? | ☑ Yes | ☐ No | | 1. |
| Chain of Custody Relinquished? | ☑ Yes | ☑ No | KN 04/15/22 | 2. |
| Sampler Name and/or Signature on COC? | ☑ Yes | ☐ No | ☐ N/A | 3. |
| Samples Arrived within Hold Time? | ☑ Yes | ☐ No | | 4. If Fecal: ☐ <8 hrs ☐ >8hr, <24 hrs, ☐ >24 hrs |
| Short Hold Time Analysis (<72 hr)? | ☐ Yes | ☑ No | | 5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E coli ☐ BOD/cBOD ☐ Hex Chrome ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other |
| Rush Turn Around Time Requested? | ☐ Yes | ☑ No | | 6. |
| Sufficient Volume? | ☑ Yes | ☐ No | | 7. |
| Correct Containers Used? -Pace Containers Used? | ☑ Yes ☑ Yes | ☐ No ☐ No | | 8. |
| Containers Intact? | ☑ Yes | ☐ No | | 9. |
| Field Filtered Volume Received for Dissolved Tests? | ☐ Yes | ☐ No | ☑ N/A | 10. Is sediment visible in the dissolved container? ☐ Yes ☐ No |
| Is sufficient information available to reconcile the samples to the COC? Matrix: ☑ Water ☐ Soil ☐ Oil ☐ Other- | ☑ Yes | ☐ No | | 11. If no, write ID/ Date/Time on Container Below: ☐ See Exception ENV-FRM-MIN4-0142 |
| All containers needing acid/base preservation have been checked? | ☐ Yes | ☐ No | ☑ N/A | 12. Sample # |
| All containers needing preservation are found to be in compliance with EPA recommendation? ($HNO_3$, $H_2SO_4$, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide) | ☐ Yes | ☐ No | ☑ N/A | ☐ NaOH ☐ $HNO_3$ ☐ $H_2SO_4$ ☐ Zinc Acetate |
| Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS | ☑ Yes | ☐ No | ☐ N/A | Positive for Res. Chlorine? ☐ Yes ☐ No pH Paper Lot# ☐ See Exception ENV-FRM-MIN4-0142 |
| | | | | Res. Chlorine \| 0-6 Roll \| 0-6 Strip \| 0-14 Strip |
| Headspace in Methyl Mercury Container? | ☐ Yes | ☐ No | ☑ N/A | |
| Extra labels present on soil VOA or WIDRO containers? | ☐ Yes | ☐ No | ☑ N/A | 13. ☐ See Exception ENV-FRM-MIN4-0140 |
| Headspace in VOA Vials (greater than 6mm)? | ☐ Yes | ☐ No | ☑ N/A | |
| Trip Blank Present? | ☐ Yes | ☐ No | ☑ N/A | 14. |
| Trip Blank Custody Seals Present? | ☐ Yes | ☐ No | ☑ N/A | Pace Trip Blank Lot # (if purchased): |

**CLIENT NOTIFICATION/RESOLUTION** Field Data Required? ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Grace Richardson Date: 4-15-22

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by: KN 2

Pace Analytical™

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414

Tel 612-607-1700
Fax 612-607-6444

## Drinking Water Analysis Results
## 2,3,7,8-TCDD -- USEPA Method 1613B

**Sample ID.....430032-A**
Client..... National Testing Laborato
Lab Sample ID.....10604793001

Date Collected.....04/12/2022
Date Received.....04/15/2022
Date Extracted.....04/18/2022

Spike.....200 pg
IS Spike.....2000 pg
CS Spike.....200 pg

| | Sample 430032-A | Method Blank | Lab Spike | Lab Spike Dup |
|---|---|---|---|---|
| [2,3,7,8-TCDD] | **ND** | ND | -- | -- |
| LOQ | 5.0 pg/L | 5.0 pg/L | -- | -- |
| 2,3,7,8-TCDD Recovery | -- | -- | 120% | 131% |
| pg Recovered | -- | -- | 240pg/L | 262pg/L |
| Spike Recovery Limit | -- | -- | 73-146% | 73-146% |
| RPD | | | | 8.6% |
| IS Recovery | **68%** | 63% | 42% | 56% |
| pg Recovered | 1363 pg/L | 1267 pg/L | 846 pg/L | 1123 pg/L |
| IS Recovery Limits | 31-137% | 31-137% | 25-141% | 25-141% |
| CS Recovery | **80%** | 90% | 57% | 104% |
| pg Recovered | 159 pg/L | 180 pg/L | 114 pg/L | 207 pg/L |
| CS Recovery Limits | 42-164% | 42-164% | 37-158% | 37-158% |
| Filename | F220423A_11 | F220420B_05 | F220420B_03 | F220420B_04 |
| Analysis Date | 04/23/2022 | 04/20/2022 | 04/20/2022 | 04/20/2022 |
| Analysis Time | 03:11 | 17:24 | 16:12 | 16:53 |
| Analyst | CVS | SM | SM | SM |
| Volume | 1.042L | 0.987L | 1.005L | 1.014L |
| Dilution | NA | NA | NA | NA |
| ICAL Date | 04/06/2022 | 04/06/2022 | 04/06/2022 | 04/06/2022 |
| CCAL Filename | F220423A_02 | F220420B_02 | F220420B_02 | F220420B_02 |

! = Outside the Control Limits
ND = Not Detected
LOQ = Limit of Quantitation
Limits = Control Limits from Method 1613 (10/94 Revision), Tables 6A and 7A
RPD = Relative Percent Difference of Lab Spike Recoveries
IS = Internal Standard [2,3,7,8-TCDD-$^{13}C_{12}$]
CS = Cleanup Standard [2,3,7,8-TCDD-$^{37}Cl_4$]

Analyst: Chuck Swepson

Project No.....10604793

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2188034
Pace Project No.: 30476868

**Sample: 430032** **Lab ID: 30476868001** Collected: 03/29/22 13:50 Received: 03/31/22 10:00 Matrix: Drinking Water
PWS: Site ID: Sample Type:

Comments:
- Sample collection dates and times were not present on the sample containers.
- Upon receipt at the laboratory, 2.5 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis. The samples were preserved <2 within the required 5 days of collection.

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|
| | | Pace Analytical Services - Greensburg | | | | |
| Radon | SM 7500RnB-07 | **34.8 ± 40.0 (67.0) C:NA T:NA** | pCi/L | 04/02/22 16:28 | 10043-92-2 | |

## REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

**Pace Analytical Services, LLC**
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2188034
Pace Project No.: 30477356

**Sample: 430032** **Lab ID: 30477356001** Collected: 03/29/22 13:50 Received: 04/01/22 09:40 Matrix: Drinking Water
PWS: Site ID: Sample Type:

Comments:
- SOURCE WATER, Hillside Spring Columbiana CO OH, Salineville OH
- sample number: 430032
- sample collected 3/29/22 @13:50 by /b Fazekas
- Sample collection dates and times were not present on the sample containers.
- Upon receipt at the laboratory, 2.5 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis. The samples were preserved <2 within the required 5 days of collection.

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|
| | Pace Analytical Services - Greensburg | | | | | |
| Gross Alpha | EPA 900.0 | **-0.092 ± 0.779 (2.47) C:NA T:NA** | pCi/L | 04/22/22 07:52 | 12587-46-1 | |
| Gross Beta | EPA 900.0 | **2.44 ± 1.07 (1.94) C:NA T:NA** | pCi/L | 04/22/22 07:52 | 12587-47-2 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 903.1 | **0.282 ± 0.332 (0.524) C:NA T:90%** | pCi/L | 04/20/22 14:33 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 904.0 | **0.128 ± 0.326 (0.731) C:75% T:82%** | pCi/L | 04/18/22 15:25 | 15262-20-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Total Radium | Total Radium Calculation | **0.410 ± 0.658 (1.26)** | pCi/L | 04/22/22 15:13 | 7440-14-4 | |

## REPORT OF LABORATORY ANALYSIS

EMSL Analytical, Inc.
200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

| | |
|---|---|
| EMSL Order ID: | 042206939 |
| Customer ID: | NTLI78 |
| Customer PO: | 14630 |
| Project ID: | |

**Attn:** Susan Henderson
National Testing Laboratories, Inc.
6571 Wilson Mills Road
Cleveland, OH 44143

**Proj:** 430032

| | |
|---|---|
| Phone: | (440) 449-2525 |
| Fax: | (Ema) il -only |
| Received: | 03/31/2022 |
| Analyzed: | 04/13/2022 |

## Test Report: Determination of Asbestos Structures >10µm in Drinking Water Performed by the 100.2 Method (EPA 600/R-94/134)

| Sample ID Client / EMSL | Sample Filtration Date/Time | Original Sample Vol. Filtered (ml) | Effective Filter Area ($mm^2$) | Area Analyzed ($mm^2$) | ASBESTOS Asbestos Types | Fibers Detected | Analytical Sensitivity | Concentration | Confidence Limits |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | MFL (million fibers per liter) | | |
| 430032<br>042206939-0001 | 3/31/2022<br>12:15 PM | 100 | 1322 | 0.0762 | None Detected | ND | 0.17 | <0.17 | 0.00 - 0.64 |

*Collection Date/Time:* *03/29/2022 13:50 PM*

Bottle supplied by client.

Analyst(s)
Seri Smith (1)

Samantha Rundstrom, Laboratory Manager
or Other Approved Signatory

Any questions please contact Samantha Rundstrom-Cruz.

Initial report from: 04/13/2022 13:56:04

# Client Sample Results

Client: National Testing Laboratories, Ltd
Project/Site: 430027,430030,430032

Job ID: 810-19568-1

## Client Sample ID: 430032/2188034

**Date Collected: 03/29/22 13:50**
**Date Received: 04/01/22 08:00**

## Lab Sample ID: 810-19568-3

**Matrix: Bottled Water**

5

### Method: 331.0 - Perchlorate (LC/MS/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 0.058 | | 0.050 | | ug/L | | | 04/05/22 01:30 | 1 |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Cyanide, Total | <0.020 | | 0.020 | | mg/L | | 04/07/22 09:58 | 04/07/22 11:31 | 1 |

# Client Sample Results

Client: National Testing Laboratories, Ltd
Project/Site: 430028,430033

Job ID: 810-19592-1

## Client Sample ID: 430033/2188034

**Date Collected: 03/29/22 13:50**
**Date Received: 04/01/22 08:00**

## Lab Sample ID: 810-19592-2

**Matrix: Bottled Water**

5

### Method: 522 - 1,4 Dioxane (GC/MS SIM) - RE

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | <0.070 | | 0.070 | | ug/L | | 04/11/22 08:03 | 04/11/22 18:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,4-Dioxane-d8 (Surr)* | *92* | | *70 - 130* | *04/11/22 08:03* | *04/11/22 18:07* | *1* |

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2216833 |
| Client: | National Testing Laboratories, LTD<br>6571 Wilson Mills Rd.<br>Cleveland, OH 44143 |
| ATTN: | Susan Henderson |
| Phone: | (440) 449-2525 |
| Project Name: | HILLSIDE SPRING-COLUMBIANA CO, |
| Project Number: | 9996434 |
| Report Date: | 04/15/22 |



Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

**Project Name:** HILLSIDE SPRING-COLUMBIANA CO,
**Project Number:** 9996434

**Lab Number:** L2216833
**Report Date:** 04/15/22

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2216833-01 | 430033 | DW | 2188034 | 03/29/22 13:50 | 04/01/22 |
| L2216833-02 | 430033-FIELD BLANK | DW | 2188034 | 03/29/22 13:50 | 04/01/22 |

**Project Name:** HILLSIDE SPRING-COLUMBIANA CO,
**Project Number:** 9996434

**Lab Number:** L2216833
**Report Date:** 04/15/22

## Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

**Project Name:** HILLSIDE SPRING-COLUMBIANA CO,
**Project Number:** 9996434

**Lab Number:** L2216833
**Report Date:** 04/15/22

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Alycia Mogayzel

Title: Technical Director/Representative Date: 04/15/22

# ORGANICS

# SEMIVOLATILES

**Project Name:** HILLSIDE SPRING-COLUMBIANA CO,
**Project Number:** 9996434

**Lab Number:** L2216833
**Report Date:** 04/15/22

## SAMPLE RESULTS

Lab ID: L2216833-01
Client ID: 430033
Sample Location: 2188034

Date Collected: 03/29/22 13:50
Date Received: 04/01/22
Field Prep: Not Specified

Sample Depth:
Matrix: Dw
Analytical Method: 133,537.1
Analytical Date: 04/11/22 15:11
Analyst: AC

Extraction Method: EPA 537.1
Extraction Date: 04/08/22 17:45

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab** | | | | | | |
| Perfluorobutanesulfonic Acid (PFBS) | ND | | ng/l | 1.92 | 0.640 | 1 |
| Perfluorohexanoic Acid (PFHxA) | ND | | ng/l | 1.92 | 0.640 | 1 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | ND | | ng/l | 1.92 | 0.640 | 1 |
| Perfluoroheptanoic Acid (PFHpA) | ND | | ng/l | 1.92 | 0.640 | 1 |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | | ng/l | 1.92 | 0.640 | 1 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) | ND | | ng/l | 1.92 | 0.640 | 1 |
| Perfluorooctanoic Acid (PFOA) | ND | | ng/l | 1.92 | 0.640 | 1 |
| Perfluorononanoic Acid (PFNA) | ND | | ng/l | 1.92 | 0.640 | 1 |
| Perfluorooctanesulfonic Acid (PFOS) | ND | | ng/l | 1.92 | 0.640 | 1 |
| Perfluorodecanoic Acid (PFDA) | ND | | ng/l | 1.92 | 0.640 | 1 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) | ND | | ng/l | 1.92 | 0.640 | 1 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) | ND | | ng/l | 1.92 | 0.640 | 1 |
| Perfluoroundecanoic Acid (PFUnA) | ND | | ng/l | 1.92 | 0.640 | 1 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) | ND | | ng/l | 1.92 | 0.640 | 1 |
| Perfluorododecanoic Acid (PFDoA) | ND | | ng/l | 1.92 | 0.640 | 1 |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) | ND | | ng/l | 1.92 | 0.640 | 1 |
| Perfluorotridecanoic Acid (PFTrDA) | ND | | ng/l | 1.92 | 0.640 | 1 |
| Perfluorotetradecanoic Acid (PFTA) | ND | | ng/l | 1.92 | 0.640 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA) | 92 | | 70-130 |
| Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA) | 83 | | 70-130 |
| Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA) | 97 | | 70-130 |
| N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA) | 99 | | 70-130 |

**Project Name:** HILLSIDE SPRING-COLUMBIANA CO,
**Project Number:** 9996434

**Lab Number:** L2216833
**Report Date:** 04/15/22

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 133,537.1
Analytical Date: 04/11/22 13:00
Analyst: AC

Extraction Method: EPA 537.1
Extraction Date: 04/08/22 17:45

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab for sample(s): 01 Batch: WG1625248-1 | | | | | |
| Perfluorobutanesulfonic Acid (PFBS) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorohexanoic Acid (PFHxA) | ND | | ng/l | 2.00 | 0.668 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluoroheptanoic Acid (PFHpA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | | ng/l | 2.00 | 0.668 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorooctanoic Acid (PFOA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorononanoic Acid (PFNA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorooctanesulfonic Acid (PFOS) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorodecanoic Acid (PFDA) | ND | | ng/l | 2.00 | 0.668 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) | ND | | ng/l | 2.00 | 0.668 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluoroundecanoic Acid (PFUnA) | ND | | ng/l | 2.00 | 0.668 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorododecanoic Acid (PFDoA) | ND | | ng/l | 2.00 | 0.668 |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorotridecanoic Acid (PFTrDA) | ND | | ng/l | 2.00 | 0.668 |
| Perfluorotetradecanoic Acid (PFTA) | ND | | ng/l | 2.00 | 0.668 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA) | 88 | | 70-130 |
| Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA) | 81 | | 70-130 |
| Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA) | 98 | | 70-130 |
| N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA) | 105 | | 70-130 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** HILLSIDE SPRING-COLUMBIANA CO,

**Project Number:** 9996434

**Lab Number:** L2216833

**Report Date:** 04/15/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01 Batch: WG1625248-2 | | | | | | | | |
| Perfluorobutanesulfonic Acid (PFBS) | 96 | | - | | 70-130 | - | | 30 |
| Perfluorohexanoic Acid (PFHxA) | 107 | | - | | 70-130 | - | | 30 |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | 96 | | - | | 70-130 | - | | 30 |
| Perfluoroheptanoic Acid (PFHpA) | 113 | | - | | 70-130 | - | | 30 |
| Perfluorohexanesulfonic Acid (PFHxS) | 102 | | - | | 70-130 | - | | 30 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) | 118 | | - | | 70-130 | - | | 30 |
| Perfluorooctanoic Acid (PFOA) | 116 | | - | | 70-130 | - | | 30 |
| Perfluorononanoic Acid (PFNA) | 114 | | - | | 70-130 | - | | 30 |
| Perfluorooctanesulfonic Acid (PFOS) | 103 | | - | | 70-130 | - | | 30 |
| Perfluorodecanoic Acid (PFDA) | 121 | | - | | 70-130 | - | | 30 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) | 109 | | - | | 70-130 | - | | 30 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) | 113 | | - | | 70-130 | - | | 30 |
| Perfluoroundecanoic Acid (PFUnA) | 122 | | - | | 70-130 | - | | 30 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) | 119 | | - | | 70-130 | - | | 30 |
| Perfluorododecanoic Acid (PFDoA) | 122 | | - | | 70-130 | - | | 30 |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) | 109 | | - | | 70-130 | - | | 30 |
| Perfluorotridecanoic Acid (PFTrDA) | 110 | | - | | 70-130 | - | | 30 |
| Perfluorotetradecanoic Acid (PFTA) | 99 | | - | | 70-130 | - | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** HILLSIDE SPRING-COLUMBIANA CO,
**Project Number:** 9996434

**Lab Number:** L2216833
**Report Date:** 04/15/22

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|

Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01 Batch: WG1625248-2

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA) | 92 | | | | 70-130 |
| Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA) | 85 | | | | 70-130 |
| Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA) | 101 | | | | 70-130 |
| N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA) | 111 | | | | 70-130 |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** HILLSIDE SPRING-COLUMBIANA CO,
**Project Number:** 9996434

**Lab Number:** L2216833
**Report Date:** 04/15/22

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab | Associated sample(s): 01 | | QC Batch ID: WG1625248-3 | | | QC Sample: L2216748-01 | | | Client ID: MS Sample | | | |
| Perfluorobutanesulfonic Acid (PFBS) | ND | 33.9 | 31.1 | 92 | | - | - | | 70-130 | - | | 30 |
| Perfluorohexanoic Acid (PFHxA) | ND | 38.2 | 38.8 | 102 | | - | - | | 70-130 | - | | 30 |
| 2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA) | ND | 38.2 | 33.7 | 88 | | - | - | | 70-130 | - | | 30 |
| Perfluoroheptanoic Acid (PFHpA) | ND | 38.2 | 42.5 | 111 | | - | - | | 70-130 | - | | 30 |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | 34.9 | 35.3 | 101 | | - | - | | 70-130 | - | | 30 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) | ND | 36 | 37.0 | 103 | | - | - | | 70-130 | - | | 30 |
| Perfluorooctanoic Acid (PFOA) | ND | 38.2 | 44.8 | 117 | | - | - | | 70-130 | - | | 30 |
| Perfluorononanoic Acid (PFNA) | ND | 38.2 | 43.9 | 115 | | - | - | | 70-130 | - | | 30 |
| Perfluorooctanesulfonic Acid (PFOS) | ND | 35.4 | 36.1 | 102 | | - | - | | 70-130 | - | | 30 |
| Perfluorodecanoic Acid (PFDA) | ND | 38.2 | 45.6 | 119 | | - | - | | 70-130 | - | | 30 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) | ND | 35.6 | 38.5 | 108 | | - | - | | 70-130 | - | | 30 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) | ND | 38.2 | 39.6 | 104 | | - | - | | 70-130 | - | | 30 |
| Perfluoroundecanoic Acid (PFUnA) | ND | 38.2 | 44.8 | 117 | | - | - | | 70-130 | - | | 30 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) | ND | 38.2 | 41.3 | 108 | | - | - | | 70-130 | - | | 30 |
| Perfluorododecanoic Acid (PFDoA) | ND | 38.2 | 43.8 | 115 | | - | - | | 70-130 | - | | 30 |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) | ND | 36 | 38.3 | 106 | | - | - | | 70-130 | - | | 30 |
| Perfluorotridecanoic Acid (PFTrDA) | ND | 38.2 | 41.9 | 110 | | - | - | | 70-130 | - | | 30 |
| Perfluorotetradecanoic Acid (PFTA) | ND | 38.2 | 38.2 | 100 | | - | - | | 70-130 | - | | 30 |

# Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** HILLSIDE SPRING-COLUMBIANA CO,
**Project Number:** 9996434

**Lab Number:** L2216833
**Report Date:** 04/15/22

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab | Associated sample(s): 01 | QC Batch ID: WG1625248-3 | QC Sample: L2216748-01 | Client ID: MS Sample | | | | | | | | |

| Surrogate | MS % Recovery | MS Qualifier | MSD % Recovery | MSD Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| 2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA) | 82 | | | | 70-130 |
| N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA) | 102 | | | | 70-130 |
| Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA) | 105 | | | | 70-130 |
| Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA) | 88 | | | | 70-130 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** HILLSIDE SPRING-COLUMBIANA CO,
**Project Number:** 9996434

**Lab Number:** L2216833
**Report Date:** 04/15/22

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1625248-4 QC Sample: L2216748-02 Client ID: DUP Sample | | | | | | |
| Perfluorobutanesulfonic Acid (PFBS) | ND | ND | ng/l | NC | | 30 |
| Perfluorohexanoic Acid (PFHxA) | 7.28 | 7.11 | ng/l | 2 | | 30 |
| 2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA) | ND | ND | ng/l | NC | | 30 |
| Perfluoroheptanoic Acid (PFHpA) | 4.19 | 4.22 | ng/l | 1 | | 30 |
| Perfluorohexanesulfonic Acid (PFHxS) | ND | ND | ng/l | NC | | 30 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) | ND | ND | ng/l | NC | | 30 |
| Perfluorooctanoic Acid (PFOA) | 5.08 | 4.88 | ng/l | 4 | | 30 |
| Perfluorononanoic Acid (PFNA) | ND | ND | ng/l | NC | | 30 |
| Perfluorooctanesulfonic Acid (PFOS) | 1.10J | 1.13J | ng/l | NC | | 30 |
| Perfluorodecanoic Acid (PFDA) | ND | ND | ng/l | NC | | 30 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) | ND | ND | ng/l | NC | | 30 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) | ND | ND | ng/l | NC | | 30 |
| Perfluoroundecanoic Acid (PFUnA) | ND | ND | ng/l | NC | | 30 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) | ND | ND | ng/l | NC | | 30 |
| Perfluorododecanoic Acid (PFDoA) | ND | ND | ng/l | NC | | 30 |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) | ND | ND | ng/l | NC | | 30 |
| Perfluorotridecanoic Acid (PFTrDA) | ND | ND | ng/l | NC | | 30 |
| Perfluorotetradecanoic Acid (PFTA) | ND | ND | ng/l | NC | | 30 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** HILLSIDE SPRING-COLUMBIANA CO,
**Project Number:** 9996434

**Lab Number:** L2216833
**Report Date:** 04/15/22

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|

Perfluorinated Alkyl Acids by EPA 537.1 - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1625248-4 QC Sample: L2216748-02 Client ID: DUP Sample

| Surrogate | %Recovery | Qualifier | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| Perfluoro-n-[1,2-13C2]hexanoic Acid (13C-PFHxA) | 88 | | 90 | | 70-130 |
| 2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA) | 81 | | 83 | | 70-130 |
| Perfluoro-n-[1,2-13C2]decanoic Acid (13C-PFDA) | 94 | | 105 | | 70-130 |
| N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA) | 98 | | 103 | | 70-130 |

**Project Name:** HILLSIDE SPRING-COLUMBIANA CO,
**Project Number:** 9996434

**Lab Number:** L2216833
**Report Date:** 04/15/22

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

### Cooler Information

| Cooler | Custody Seal |
|---|---|
| A | Absent |

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2216833-01A | Plastic 250ml Trizma preserved | A | NA | | 6.0 | Y | Absent | | A2-537.1(14) |
| L2216833-01B | Plastic 250ml Trizma preserved | A | NA | | 6.0 | Y | Absent | | A2-537.1(14) |
| L2216833-02A | Plastic 250ml Trizma preserved | A | NA | | 6.0 | Y | Absent | | A2-L-EXT-537(14) |



*Values in parentheses indicate holding time in days

## PFAS PARAMETER SUMMARY

| Parameter | Acronym | CAS Number |
|---|---|---|
| PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs) | | |
| Perfluorooctadecanoic Acid | PFODA | 16517-11-6 |
| Perfluorohexadecanoic Acid | PFHxDA | 67905-19-5 |
| Perfluorotetradecanoic Acid | PFTA | 376-06-7 |
| Perfluorotridecanoic Acid | PFTrDA | 72629-94-8 |
| Perfluorododecanoic Acid | PFDoA | 307-55-1 |
| Perfluoroundecanoic Acid | PFUnA | 2058-94-8 |
| Perfluorodecanoic Acid | PFDA | 335-76-2 |
| Perfluorononanoic Acid | PFNA | 375-95-1 |
| Perfluorooctanoic Acid | PFOA | 335-67-1 |
| Perfluoroheptanoic Acid | PFHpA | 375-85-9 |
| Perfluorohexanoic Acid | PFHxA | 307-24-4 |
| Perfluoropentanoic Acid | PFPeA | 2706-90-3 |
| Perfluorobutanoic Acid | PFBA | 375-22-4 |
| PERFLUOROALKYL SULFONIC ACIDS (PFSAs) | | |
| Perfluorododecanesulfonic Acid | PFDoDS | 79780-39-5 |
| Perfluorodecanesulfonic Acid | PFDS | 335-77-3 |
| Perfluorononanesulfonic Acid | PFNS | 68259-12-1 |
| Perfluorooctanesulfonic Acid | PFOS | 1763-23-1 |
| Perfluoroheptanesulfonic Acid | PFHpS | 375-92-8 |
| Perfluorohexanesulfonic Acid | PFHxS | 355-46-4 |
| Perfluoropentanesulfonic Acid | PFPeS | 2706-91-4 |
| Perfluorobutanesulfonic Acid | PFBS | 375-73-5 |
| FLUOROTELOMERS | | |
| 1H,1H,2H,2H-Perfluorododecanesulfonic Acid | 10:2FTS | 120226-60-0 |
| 1H,1H,2H,2H-Perfluorodecanesulfonic Acid | 8:2FTS | 39108-34-4 |
| 1H,1H,2H,2H-Perfluorooctanesulfonic Acid | 6:2FTS | 27619-97-2 |
| 1H,1H,2H,2H-Perfluorohexanesulfonic Acid | 4:2FTS | 757124-72-4 |
| PERFLUOROALKANE SULFONAMIDES (FASAs) | | |
| Perfluorooctanesulfonamide | FOSA | 754-91-6 |
| N-Ethyl Perfluorooctane Sulfonamide | NEtFOSA | 4151-50-2 |
| N-Methyl Perfluorooctane Sulfonamide | NMeFOSA | 31506-32-8 |
| PERFLUOROALKANE SULFONYL SUBSTANCES | | |
| N-Ethyl Perfluorooctanesulfonamido Ethanol | NEtFOSE | 1691-99-2 |
| N-Methyl Perfluorooctanesulfonamido Ethanol | NMeFOSE | 24448-09-7 |
| N-Ethyl Perfluorooctanesulfonamidoacetic Acid | NEtFOSAA | 2991-50-6 |
| N-Methyl Perfluorooctanesulfonamidoacetic Acid | NMeFOSAA | 2355-31-9 |
| PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS | | |
| 2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid | HFPO-DA | 13252-13-6 |
| 4,8-Dioxa-3h-Perfluorononanoic Acid | ADONA | 919005-14-4 |
| CHLORO-PERFLUOROALKYL SULFONIC ACIDS | | |
| 11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid | 11Cl-PF3OUdS | 763051-92-9 |
| 9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid | 9Cl-PF3ONS | 756426-58-1 |
| PERFLUOROETHER SULFONIC ACIDS (PFESAs) | | |
| Perfluoro(2-Ethoxyethane)Sulfonic Acid | PFEESA | 113507-82-7 |
| PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs) | | |
| Perfluoro-3-Methoxypropanoic Acid | PFMPA | 377-73-1 |
| Perfluoro-4-Methoxybutanoic Acid | PFMBA | 863090-89-5 |
| Nonafluoro-3,6-Dioxaheptanoic Acid | NFDHA | 151772-58-6 |

**Project Name:** HILLSIDE SPRING-COLUMBIANA CO, **Lab Number:** L2216833

**Project Number:** 9996434 **Report Date:** 04/15/22

## GLOSSARY

***Acronyms***

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | HILLSIDE SPRING-COLUMBIANA CO, | **Lab Number:** | L2216833 |
| **Project Number:** | 9996434 | **Report Date:** | 04/15/22 |

***Footnotes***

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

***Terms***

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

***Data Qualifiers***

**A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

**B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

**C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

**D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

**E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

**F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

**G** - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

**H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

**I** - The lower value for the two columns has been reported due to obvious interference.

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

**M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | HILLSIDE SPRING-COLUMBIANA CO, | **Lab Number:** | L2216833 |
| **Project Number:** | 9996434 | **Report Date:** | 04/15/22 |

***Data Qualifiers***

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

**P** - The RPD between the results for the two columns exceeds the method-specified criteria.

**Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

**V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

*Report Format: DU Report with 'J' Qualifiers*

**Project Name:** HILLSIDE SPRING-COLUMBIANA CO, **Lab Number:** L2216833
**Project Number:** 9996434 **Report Date:** 04/15/22

## REFERENCES

133 Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537.1, EPA/600/R-18/352. Version 1.0, November 2018.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

# Certification Information

**The following analytes are not included in our Primary NELAP Scope of Accreditation:**

**Westborough Facility**
**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene
**EPA 625/625.1:** alpha-Terpineol
**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D/8270E:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**Biological Tissue Matrix:** EPA 3050B

**The following analytes are included in our Massachusetts DEP Scope of Accreditation**

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

**Mansfield Facility:**

***Drinking Water***
**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
**EPA 522, EPA 537.1.**

***Non-Potable Water***
**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
**EPA 245.1** Hg.
**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

**National Testing Laboratories, Ltd.**
*Quality Water Analysis*

4/1/22

L816833

# CHAIN OF CUSTODY



**Initiated by:** ☐ Client ☑ National Testing Laboratories, Ltd. ☐ Other

CLIENT/COMPANY NAME:

CLIENT COMMENTS:

TYPES OF SAMPLES:

DRINKING WATER = D SOIL SAMPLE = S
GROUND WATER = G SLUDGE/WASTE = W
POOL WATER = P OTHER TYPE = O

| SAMPLE # | COLLECTION DATE | COLLECTION TIME | SAMPLE SITE DESCRIPTION | SAMPLE TYPE | # OF CONTAINERS | TEST(S) REQUESTED PER SAMPLE (X): PFAS (18 w/ blanks if needed) | LAB # |
|---|---|---|---|---|---|---|---|
| 430033 | 3/29/22 | 1350 | 2188034 | D | 4 | X | |
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RECEIVER SIGNATURE CONFIRMS THAT THE BOTTLES RECEIVED ARE CONSISTENT WITH THE REQUIRED TESTING PROTOCOL.

| | | | | | |
|---|---|---|---|---|---|
| SAMPLED BY: (Signature) (1) | DATE | TIME | RELINQUISHED BY: (Signature) (4) | DATE 4/1/22 | TIME 1530 |
| SHIPPED BY: (Signature) (2) | DATE 3/30/22 | TIME 1600 | RECEIVED BY: (Signature) (5) | DATE 4/1/22 | TIME 1530 |
| RECEIVED BY: (Signature) (3) | DATE 4/1/22 | TIME 1077 | RELINQUISHED BY: (Signature) (6) | DATE 4/1/22 | TIME 1629 |
| | | | RECEIVED BY: (Signature) (7) | DATE 4/1/22 | TIME 1629 |

LABORATORY COMMENTS:

COC-001 2/22/11

See instructions on reverse side →

National Testing Laboratories, Ltd.
Quality Water Analysis

1-800-458-3330

# Beverage - Source Water

Order Number: 2188034
Order Date: 3/7/2022
Sample Number: 430033
Product: PFAS 18 ~~1,4-Dioxane~~ 3/30/22 BK
Paid: No Method: No Charge Order P.O.: Ambridge, PA
TSR: SBW

Ambridge PA 15003

Date Sampled: 3 / 29 / 22
Time Sampled: 13 : 50 Please Use Military Time, e.g. 3:00pm = 15:00
Check Time Zone: ☒ EST ☐ CST ☐ MST ☐ PST

## Source Water Information:

PWS ID# (If applicable): 9991434
Source Name: Hillside Spring - Columbiana Co, OH
City & State: Salineville, OH
(If Different than Above)
Sample Collected By: B
(Signature)
Sample Collected By: Brooke Fatekas
(Please Print)
Sample Temperature: 52.2°F Field pH: 7.05
Measured at Source By: BFatckas
Form Completed By: BFatckas
Additional Comments:

**For Laboratory Use ONLY**

Lab Accounting Information:
Payment $: _____
Check #: _____

Lab Comments/Special Instructions:
2022 Hillside Source

State Forms:
NY
Le

Lab Sample Information:
Date Received: 3 / 30 / 22
Time Received: 09 : 50
Received By: LB
☐ Sample receipt criteria checked & acceptable.
☐ Deviations from acceptable sample receipt criteria noted on PSA form.

Rev: SRT102120 INCOMPLETE INFORMATION MAY DELAY ANALYSIS AND/OR INVALIDATE RESULTS

NSF International
789 N. Dixboro Rd. Ann Arbor, MI 48105, USA
1-800.NSF.MARK | +1-734.769.8010 | www.nsf.org

# TEST REPORT

**Send To: C0023226**
Ms. Susan Henderson
National Testing Laboratories, Ltd.
6571 Wilson Mills Road
Cleveland, OH 44143

**Facility: C0023227**
National Testing Laboratories, Ltd.
556 South Mansfield Street
Ypsilanti MI 48197
United States

| | | | |
|---|---|---|---|
| **Result** | **COMPLETE** | **Final Report Date** | 26-APR-2022 |
| Customer Name | National Testing Laboratories, Ltd. | | |
| Tested To | USFDA CFR Title 21 Part 165.110 | | |
| Description | Sample # 430032 \| Order # 2188034 | | |
| Test Type | Source Water | | |
| Job Number | J-00433575 | | |
| Project Number | 30056443 (CL26) | | |
| Project Manager | Anna Baker | | |

**Thank you for having your product tested by NSF International.**

Please contact your Project Manager if you have any questions or concerns pertaining to this report.

**Report Authorization** Nancy F. Cole **Date** 26-APR-2022

Nancy Cole - Director, Analysis Laboratories

**General Information**

Standard: USFDA CFR Title 21 Part 165.110
Collected by: B. Fazekas
Date and Time Sampled: 03/29/2022 13:50 EDT
Product Description: Sample # 430032 | Order # 2188034
Test Description: Phenolics

Sample Id: **S-0001898886**
Description: Sample # 430032 | Order # 2188034 - 03/29/2022 13:50 EDT
Sampled Date: 03/29/2022
Received Date: 04/08/2022

| Testing Parameter | Reporting Limit | Result | FDA SOQ | Units | P / F |
|---|---|---|---|---|---|
| **Inorganic Chemicals** | | | | | |
| Phenolics | 0.001 | ND | 0.001 | mg/L | Pass |
| **Miscellaneous** | | | | | |

## <<Additional Information>>

Sample Id: S-0001898886

| Test Parameter | Date Analyzed | Time Analyzed | Date Prepared/ Processed |
|---|---|---|---|
| **Inorganic Chemicals** | | | |
| * Phenolics, Total Recoverable (Based on EPA 420.4) | 15-APR-2022 | | |
| **Miscellaneous** | | | |
| *Source Water BQ Receipt Test Code | | | |

***Testing Laboratories:***

| Flag | Id | Address |
|---|---|---|
| All work performed at: (Unless otherwise specified) | NSF_AA | NSF International<br>789 N. Dixboro Road<br>Ann Arbor MI 48105 |

***References to Testing Procedures:***

| NSF Reference | Parameter / Test Description |
|---|---|
| C3021 | * Phenolics, Total Recoverable (Based on EPA 420.4) |

***Laboratory Certifications:***

| | | |
|---|---|---|
| Arizona ( # AZ0655 ) | California ( # 03214 CA ) | Connecticut ( # PH-0625 ) |
| Florida ( # E-87752 FL ) | Hawaii | Indiana |
| Maryland ( # 201 ) | Michigan ( # 0048 ) | North Carolina (# 26701) |
| New Jersey ( # MI770 ) | Nevada ( # MI000302010A ) | New York (# 11206 ) |
| Pennsylvania ( # 68-00312 ) | South Carolina ( # 81005 ) | Virginia ( # 00045 ) |
| Vermont ( # VT 11206 ) | | |

Test descriptions preceded by an asterisk "*" indicate that testing has been performed per NSF International requirements but is not within its 17025 scope of accreditation.

Unless otherwise indicated, method uncertainties are not applied in any determinations of conformity. Testing utilizes the requested sections of any referenced standards, which may not be the entire standard.

**Dates of Laboratory Activity: 08-APR-2022 to 26-APR-2022**

The reported result for Total Recoverable Phenolics, Potassium, Molybdenum, Silica, Total Phosphorus, Radon, Sr-89/90, Bicarbonate, Bromochloroacetic Acid, Total Haloacetic acid, Bentazon, DCPA Acid Metabolites, EPTC, Dimethylphthalate, 2,6-Dinitrotoluene, 2,4-Dinitrotoluene, Molinate, Diethylphthalate, Terbacil, Di-n-butylphthalate, p,p'-DDE (4,4'-DDE), Butylbenzylphthalate, Trichlorotrifluoroethane, Methyl Ethyl Ketone, 1,2,3-Trimethylbenzene, Epichlorohydrin, or 1,4-Dioxane if performed, cannot be used for compliance purposes within the State of Arizona. Certifications are not offered for these compounds in a drinking water matrix.

The reported results for Total Recoverable Phenolics, pH, Bicarbonate and Temperature, if performed, are not covered by New York State drinking water certifications. NSF is not certified for Chlorine Dioxide, Chloramines, Total Residual Chlorine, Bromochloroacetic Acid, Total Haloacetic acid, Bentazon, DCPA Acid Metabolites, EPTC, Dimethylphthalate, 2,6-Dinitrotoluene, 2,4-Dinitrotoluene, Molinate, Diethylphthalate, Terbacil, Di-n-butylphthalate, p,p'-DDE (4,4'-DDE), Butylbenzylphthalate, Trichlorotrifluoroethane, Methyl Ethyl Ketone, 1,2,3-Trimethylbenzene, Epichlorohydrin, or 1,4-Dioxane in the State of New York.

Notes:

1) Bottled water sold in the United States shall not contain Fluoride in excess of the levels published by the USFDA in 21 CFR Part 165.110. These levels are based on the annual average of maximum daily air temperatures at the location where the bottled water is sold at retail. Please refer to the most current edition of the regulation to determine the Fluoride maximum level that pertains to your product.
2) A blank on the FDA SOQ column indicates that no maximum level has been established by the FDA for that contaminant.
3) An ND result means that the contaminant was not detected at or above the reporting limit.

For a list of NSF International Method Detection Limits refer to
https://d2evkimvhatqav.cloudfront.net/documents/external/minimum_detection_level_spreadsheet.pdf